THE JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION
PUBLISHED MONTHLY
Volume XXXV Jacksonville, Florida, October, 1948 No. 4

Hypertension: Recent Trends in the Surgical Treatment

ASHBEL C. WILLIAMS, M.D.
JACKSONVILLE

INTRODUCTION

The purpose of this paper is to outline the current role of surgery in the treatment of essential hypertension. Emphasis will be placed upon the selection of patients for operation, the various surgical procedures employed and the postoperative follow-up results. It is thought that this purpose can be most effectively fulfilled by reviewing the systems and results of several outstanding pioneers who have had a large experience with this type of surgery and who represent best the various poles of opinion within the subject. Accordingly, the following five authorities were selected for this study: (1) Peet, (2) Adson and Craig, (3) Smithwick, (4) Poppen and (5) Grimson. This paper is based upon the published reports of, and in some instances upon correspondence with, these surgeons. Brief reference will be made to my experiences.

SELECTION OF PATIENTS FOR SURGERY

Sympathectomy and splanchnicectomy are effective only in essential hypertension. Elevation of the blood pressure secondary to known organic lesions such as endocrine tumors and polycystic disease of the kidney is not benefited by these procedures.

In mild cases showing only a slight elevation of blood pressure and essentially normal optic fundi the prognosis is good with medical management.[1,2]

At the other extreme of essential hypertension one encounters patients afflicted with a high, fixed blood pressure, with pronounced sclerotic and degenerative changes in the ocular fundi and, frequently, with severe vascular disease affecting the heart, kidney or central nervous system. It is generally recognized that surgery is contraindicated in such cases as the operative mortality is relatively high and the end results poor.

From the Department of Surgery, Riverside Hospital, Jacksonville.
Read before the Florida Medical Association, Seventy-Fourth Annual Meeting, St. Augustine, April 11-14, 1948.

Malignant hypertension is not regarded as a separate entity but as a severe and rapidly progressive form of essential hypertension. It may or may not be amenable to surgical treatment depending on how far it has advanced.

Having excluded the mild cases and those with irreversible hypertension, one is left with an intermediate group exhibiting moderate to severe hypertensive signs and symptoms. This remaining group is that in which the disease may be amenable to surgical treatment; so it is from this group that patients are selected for operation (fig. 1).

FIGURE 1

ESSENTIAL HYPERTENSION
Indications for Surgery

(1) Age under 50 years.
(2) Progressive hypertension.
(3) Adequate renal and cardiac function.
(4) Good sedation response.
(5) Stable personality.

While individual surgeons differ slightly in their criteria and methods of selection, they are in agreement in the main, and there is a tendency to be more conservative in an effort to improve end results and avoid fruitless operations.[1,3a,4a]

Nearly all surgeons agree that patients over 50 years of age are not good candidates for surgery.[5,6a] Patients under 40 years are preferred while the highest percentage of good results is obtained in those under 30 years of age.[3a]

Alcoholics, drug addicts and emotionally unstable patients offer a poor prognosis when subjected to operation.[6a] Although a previous cerebral accident does not in itself preclude surgery,[1] it should be regarded as a contraindication if hypertension continues to worsen and great changes are noted in other systems. Surgery should be abandoned if there is increased intracranial pressure.[4a] Patients giving a history of

hypertensive encephalopathy are questionable candidates for operative treatment (fig. 2).

FIGURE 2

ESSENTIAL HYPERTENSION

Contraindications to Surgery

(1) Age over 50 years.
(2) Severe, fixed hypertension.
(3) Congestive heart failure.
(4) Renal failure (high N.P.N.).
(5) Recent coronary occlusion.
(6) Increased intracranial pressure.
(7) Addiction or emotional instability.

Progression of the hypertension is perhaps the strongest indication for surgical treatment. The duration of hypertension has little influence on the surgical results, providing the patient meets the requirement for surgery otherwise.[3]

The maximum systolic pressure compatible with a good operative result is around 250 whereas the maximum diastolic pressure is about 150 millimeters of mercury. The best surgical results are obtained in cases in which the pressures are considerably below these maxima. Smithwick[4a] thinks that a wide pulse pressure suggests a poor prognosis, and favors a relatively narrow pulse pressure in the patients to be treated surgically.

Considerable importance is attached to evaluation of the optic fundi. This aspect is the subject of another essayist on today's program.

An electrocardiogram and 7 foot heart roentgen study are essential as evaluation of the cardiac status of the patient is of great importance. The aorta should be carefully studied to rule out coarctation and to observe evidences of advanced arteriosclerosis.[4a] Enlargement of the heart, though undesirable, is not a contraindication to surgery. Previous coronary occlusion is not in itself a contraindication; however, a recent coronary occlusion or the presence of congestive heart failure should warn against operation.[1,4a] Anginal attacks make the prognosis unfavorable.[3]

As regards renal function, the urinary specific gravity (concentration test) should not be under 1.015 and the phenolsulfonphthalein excretion not less than 50 per cent in two hours.[4a] A blood nonprotein nitrogen of over 45 milligrams per hundred cubic centimeters should exclude operation.[1,3a]

A history of pyelonephritis is no longer considered a contraindication to surgery if the renal and cardiac functions are adequate.[4b] Pyelograms are essential as renal lesions so revealed may profoundly alter the therapeutic approach.[7] It is well known that in an occasional case hypertension is secondary to unilateral renal pathology. Nephrectomy is the proper approach in such cases. Then if the blood pressure does not fall, splanchnicectomy may be in order.

The lability of the vascular bed is evaluated by the cold pressure and sedation tests,[4a] the latter being of more prognostic significance. The sedation test consists of recording the blood pressure with the patient in bed under heavy sedation.

DIAGRAM OF THORACOLUMBAR SYMPATHETIC NERVE TRUNK, SPLANCHNIC NERVES AND RELATED GANGLIA

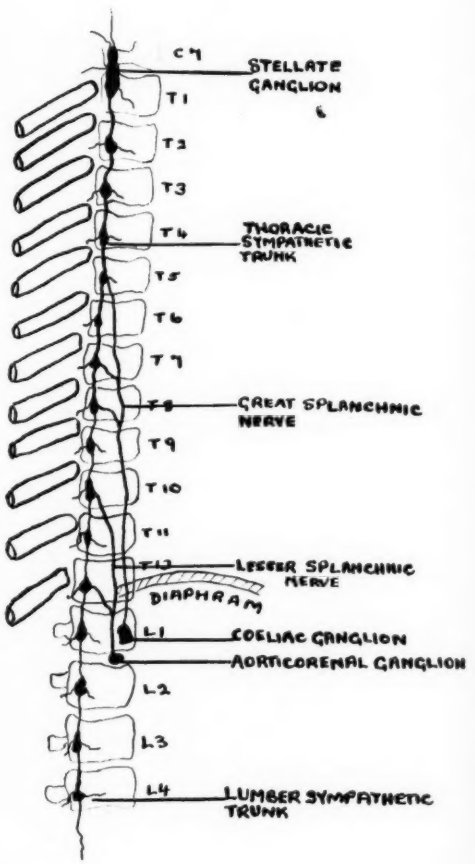


Fig. 3—A study of this diagram should orient one anatomically with the portion of the sympathetic nervous system which comes under surgical attack in the operations to be described. Only the thoracic and lumbar segments are shown. The view is of the right lateral aspect of the vertebra.

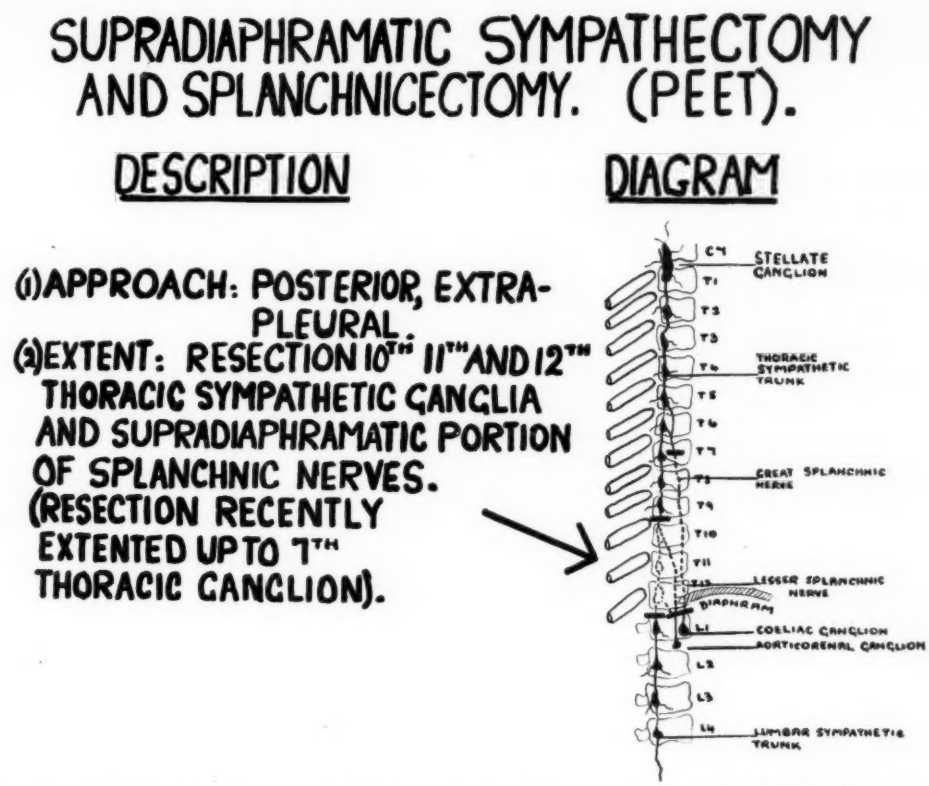


Fig. 4—This bilateral procedure is done in one stage and requires ten to fourteen days in the hospital.

If the pressure falls to normal under sedation, the prognosis with surgery is believed to be good. Failure of the pressure to drop is suggestive of a fixed hypertension. All aspects of each case must be carefully weighed before one comes to a decision regarding surgery since no single test yields a reliable prognosis. Every patient should first undergo an adequate trial of medical treatment.

The ideal surgical indication is exemplified by uncomplicated but progressive hypertension in a young and otherwise healthy person. Time and space do not permit presentation of the involved classifications which further segregate cases of essential hypertension on the basis of selection for surgery and postoperative prognosis.

SURGICAL PROCEDURES AND RESULTS

Because of the divergent views relative to the etiology of essential hypertension it is natural that a number of different surgical procedures have been devised. The common aim of all these procedures is the denervation of varying portions of the vascular bed by some form of sympathectomy and splanchnicectomy (fig. 3). They differ chiefly in two respects: (1) the surgical approach and (2) the extent of the denervation. It would seem of value to sketch the salient features and rationale of several of the operations most widely used today. An attempt will be made to summarize briefly the results reported to date by the surgeons whose operative procedures are reviewed. They will be grouped as good, improved and unimproved so far as possible. Such an overall summary is not accurate since the results have been reported in such a complex manner by the various surgeons. A good result indicates a fall in blood pressure to normal and freedom from symptoms. Patients improved show partial to complete relief and a fall in blood pressure but not to normal. Patients unimproved show no change in blood pressure or symptoms.

Peet[3b] evolved his bilateral supradiaphragmatic splanchnicectomy for relief of hypertension in 1933 (fig. 4). The procedure consisted of resection of the tenth, eleventh and twelfth thoracic sympathetic ganglia along with a generous segment of the great splanchnic nerve. The

rationale of Peet's operation is based upon his belief that essential hypertension is due to renal ischemia and that his procedure accomplishes denervation of the renal vessels and kidneys. He reported an operative mortality of 3.6 per cent.[3a]

In 1948, Peet,[3a] reporting his experiences with approximately 2,000 operations, presented the following results: 20.3 per cent good results, 46.7 per cent improved and 12.7 per cent of the living patients unimproved. Presumably the patients who died during the period of the follow-up are not included in these statistics. This author stated in this paper that he now extends his resection upward to include as high as the seventh and sometimes even the fifth thoracic ganglia.

The procedure described by Adson, Craig and Brown[8] was first performed by Adson in 1935 and is still the procedure of choice at the Mayo Clinic (fig. 5).[5, 9] It consists of bilateral resection of the first and second lumbar sympathetic ganglia and the subdiaphragmatic segment of the great splanchnic nerve.[8] These surgeons believe that essential hypertension is the result of generalized increased arteriolar tone and resistance. Their procedure is said to produce sympathetic denervation of the kidneys, adrenals, abdominal viscera and a portion of the lower extremities.[10]

Craig and Adson[10] reported their statistics in 1939 based on 237 cases. They reported 24 per cent good results, 28 per cent fair results and 48 per cent unimproved. There was no operative mortality. Recent reports on the work of these authors were not obtainable. In a recent personal communication, Adson[9] stated that at the Mayo Clinic more extensive sympathectomies were also being performed in order to compare the operative

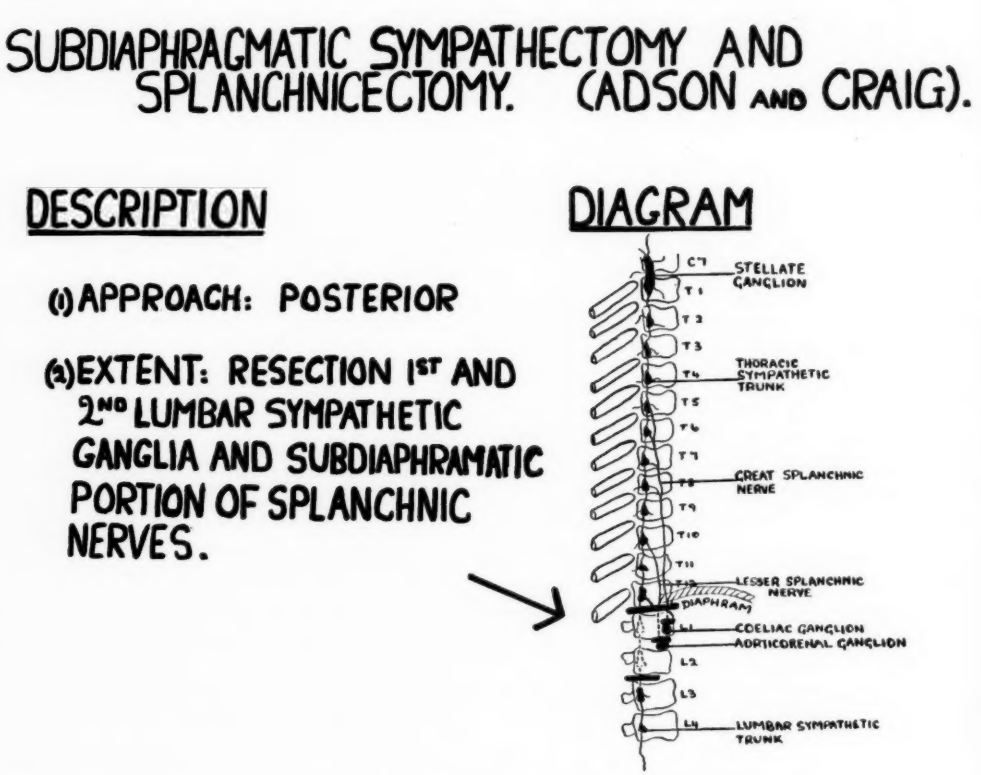


Fig. 5—This procedure has been advocated and practiced by the Mayo Clinic group.

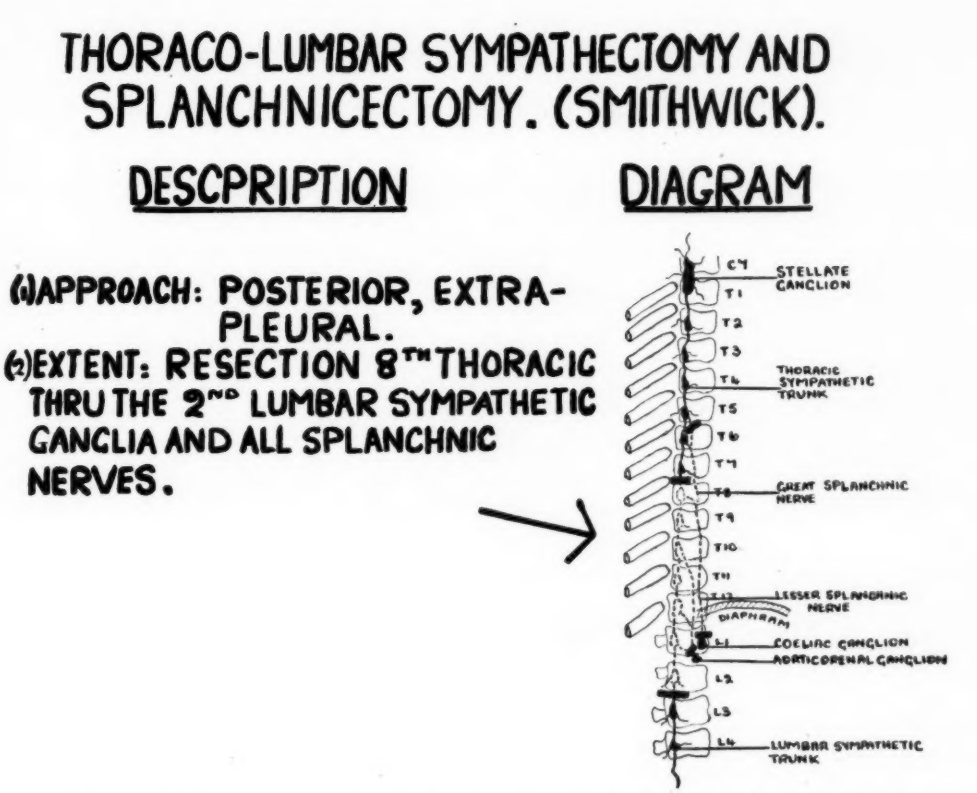


Fig. 6—This operation is employed more widely than any other over the United States today. It is done in two stages which are about eight days apart. The total hospitalization is from sixteen to twenty-one days.

results of the two procedures. He believes that more extensive sympathectomies are probably indicated in selected cases.

In 1940 Smithwick[4c] described the operation which bears his name (fig. 6). It consists of bilateral resection of the eighth thoracic through the first or second lumbar sympathetic ganglia along with the greater portion of the splanchnic nerve. This procedure is essentially a combination of the old supradiaphragmatic operation of Peet and the subdiaphragmatic operation of Adson and Craig. In 439 cases which Smithwick[4a] reported in 1947 the operative mortality was 2.4 per cent. He believes that increased peripheral resistance in the vascular bed is productive of essential hypertension and that sympathetic denervation of the splanchnic area is the most effective procedure in its treatment. Accordingly, splanchnic denervation is the chief aim of his operation.[4c] In cases in which the results are poor he sometimes performs more extensive secondary sympathectomies.[4a]

Follow-up studies based on the 439 cases reported in 1947 showed 65.8 per cent of the patients improved, 19.6 per cent unimproved and 14.6 per cent dead. No figure is given for those patients who maintained a normal blood pressure after operation, but I understand from other publications that it is about 25 per cent.[11]

Beginning in 1934 Poppen[12] employed the operation of Peet, turned to that of Adson and Craig in 1936[1] and combined the two in 1940.[3] In 1942[12a] he extended this latter operation and in 1947 described the even more radical procedure which he now prefers (fig. 7).[12b] It consists of resection of the fourth thoracic through the second lumbar sympathetic ganglia and all of the splanchnic nerves. Poppen[12b] places his operative mortality

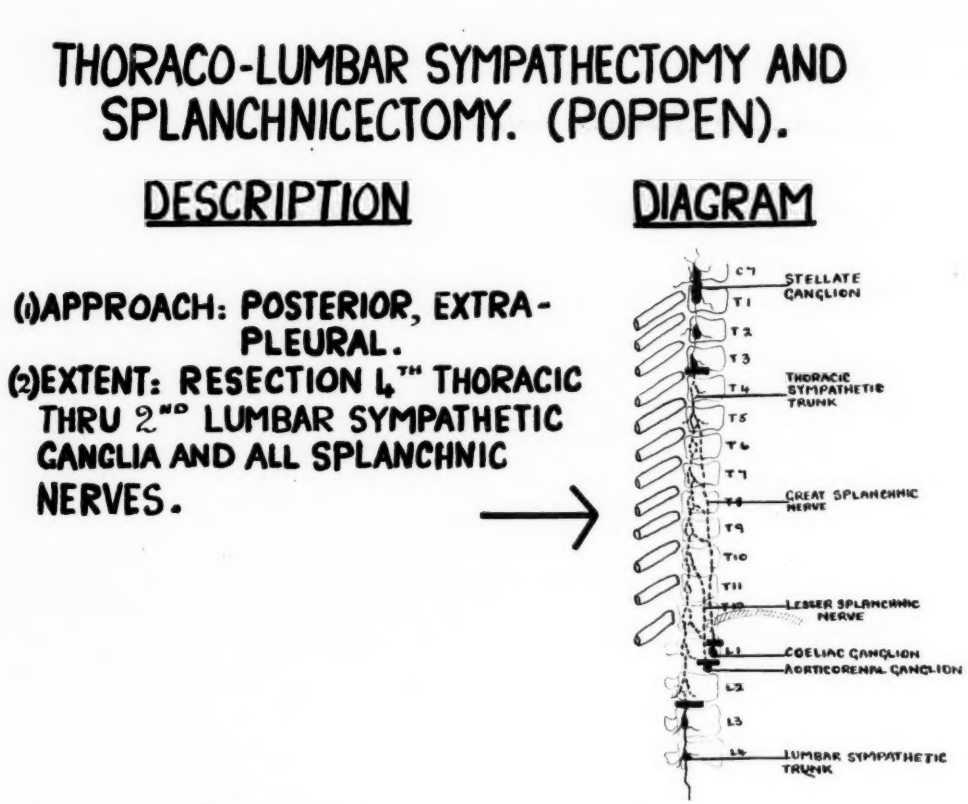


Fig. 7—Done in two stages a week or more apart, this operation requires about the same period of hospitalization as that of Smithwick. It is somewhat more difficult from a technical standpoint, but permits of a radical nerve resection.

at less than 0.5 per cent. He has become progressively more radical in an effort to improve his end results. He thinks that prolonged relief from hypertension is best obtained by an operation which, in addition to other effects, produces considerable postural hypotension through complete splanchnic denervation. He also thinks that sympathetic nerve regeneration is less likely following a radical resection.

In 1947 Poppen and Lemmon[1] reported experiences in 100 cases treated surgically. Follow-up results were good in 47 per cent, fair in 24 per cent and unsatisfactory in 22 per cent of the cases. Of the total number of patients, 71 per cent were improved.

In 1941 Grimson[6b] described an operation consisting of resection of the stellate ganglia, entire thoracic sympathetic chain, splanchnic nerves and the celiac ganglia (fig. 8). The first through the fourth lumbar sympathetic ganglia were included in the resection, which thus closely approached total sympathectomy. This procedure was based upon animal experimentation and the study of the various procedures employed in the treatment of hypertension by other surgeons at that time. This author has curtailed the operation recently to exclude the third and fourth lumbar ganglia from the resection in order to lessen the postoperative postural hypotension. He believes that the importance of splanchnic denervation has been overemphasized[6a] and that sympathetic denervation of the heart and upper portions of the body deserves equal attention.[6b]

In a recent personal communication Grimson[6c] stated that a preliminary survey of 97 patients reveals a good result in 38 per cent, a fair result

in 33 per cent and an unsatisfactory result in 14 per cent of the cases. The overall figure for patients improved is 71 per cent in this series. At the time of the survey 14.3 per cent of the patients were dead. The extensive operation advocated by Grimson[6b] was employed in all these cases. The operative mortality was 4.1 per cent.[6c] He believes that conservatism in the selection of cases for surgery will reduce the mortality considerably.

The foregoing statistics are based mostly on blood pressures. They therefore give an incomplete picture for there are many other aspects to be considered in the postoperative evaluation. Relief of symptoms such as headache and dizziness is of extreme importance and occurs in some cases when the blood pressure changes are slight or nil. Cardiac and renal functions may improve. Incapacitated patients may be rehabilitated so that they can resume work. Full success, however, must encompass a return of the blood pressure to normal as well as complete relief of symptoms. Only such an operative result as this will give the maximum prolongation of life and freedom from symptoms.

COMMENT

The five year survival rate of patients treated surgically has been found to be more than twice that of patients with comparable disease treated medically.[3c,11] The comparison is even more striking in malignant hypertension, which is universally fatal in cases treated medically while Peet[3c] obtained a 21.6 per cent five year survival rate in this type of hypertension when surgery was employed. Similar figures have been reported by others. These comparisons present a strong argument in favor of operation in suitable cases.

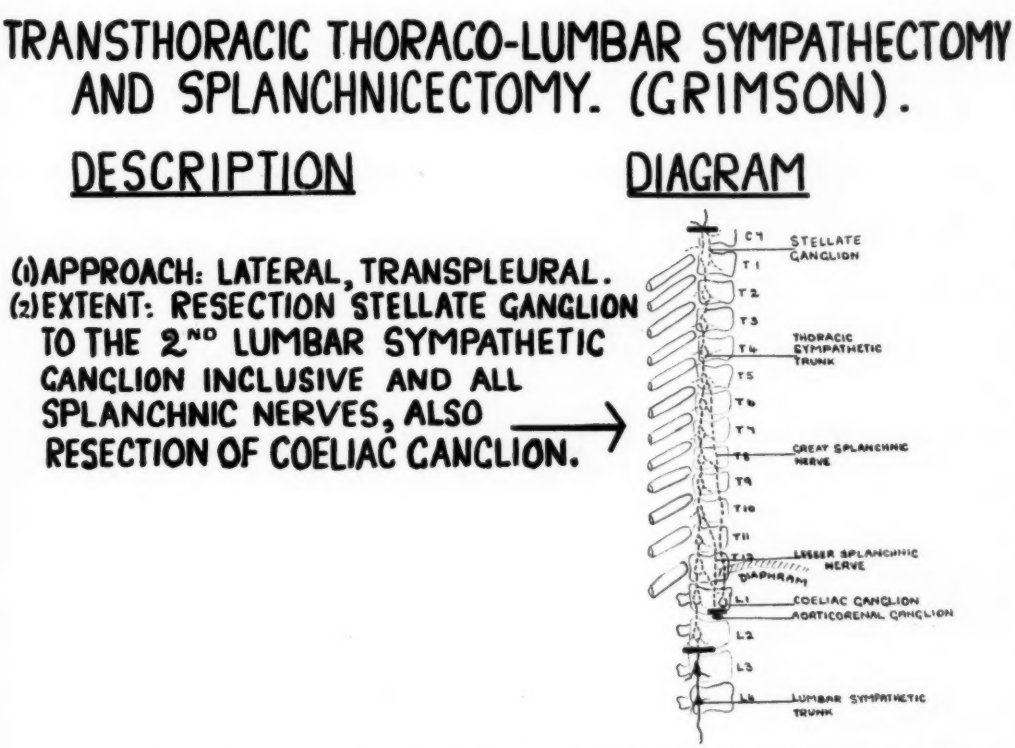


Fig. 8—This is the most extensive of the routinely performed operations employed today. Grimson obtains his exposure by means of two transthoracic incisions, one through the bed of the third rib high in the axilla and the other through the bed of the tenth rib posterolaterally. A bilateral Horner's syndrome is produced by removal of the stellate ganglia. The overall end results are good.[6c]

An effort should be made to distinguish between mild cases and the early stages of more serious disease since cases of the latter type should receive the benefit of surgery before the blood pressure has become excessively high and resultant vascular damage has occurred. Mild cases are characterized by a systolic pressure ranging between 150 and 180 and a diastolic pressure from 90 to 110 millimeters of mercury which pressures show no tendency to rise further when the patients are observed over an extended period. The pressure approaches normal with rest in such cases. When on repeated examination the trend of the blood pressure is progressively upward, one can predict with considerable accuracy that in such a case the patient is heading toward a dangerous and incapacitating hypertensive state. The most brilliant surgical results are obtained when patients of this latter type are operated upon before the disease is full-blown.

Conservatism in the selection of patients for operation will greatly increase the percentage of good results and minimize the number of complete failures. Although the criteria for such selection are not precise, a rather accurate prognosis can be made after careful study of all aspects of the case. The tendency to operate upon a patient with an unfavorable prognosis "because it offers him his only chance" should be discouraged. In most of such instances the patient suffers pain and expense and obtains no relief from his disease. Unless, by the criteria in present use, a patient has at least a reasonable chance for a successful result, the inevitable should be faced and the patient carried along in the best way possible on medical treatment.

One fact stands out from the preceding re-

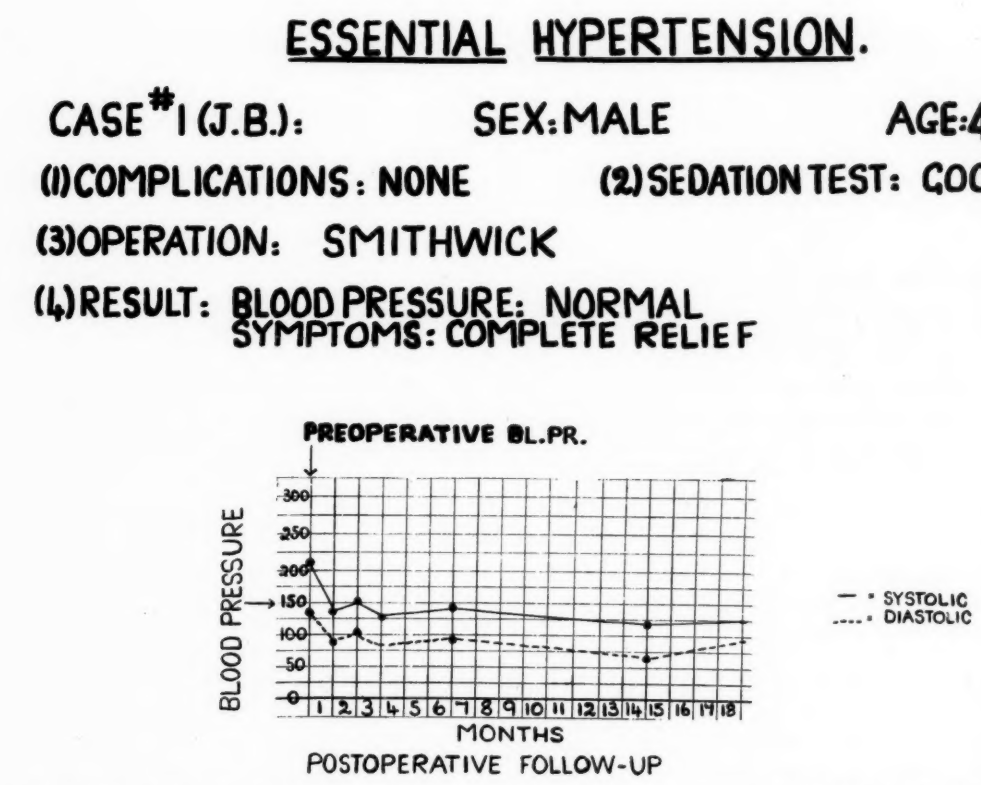


Fig. 9—This patient had had hypertension for fifteen years. He carries on normal activity and has a busy and responsible position in business. The result is an excellent one.

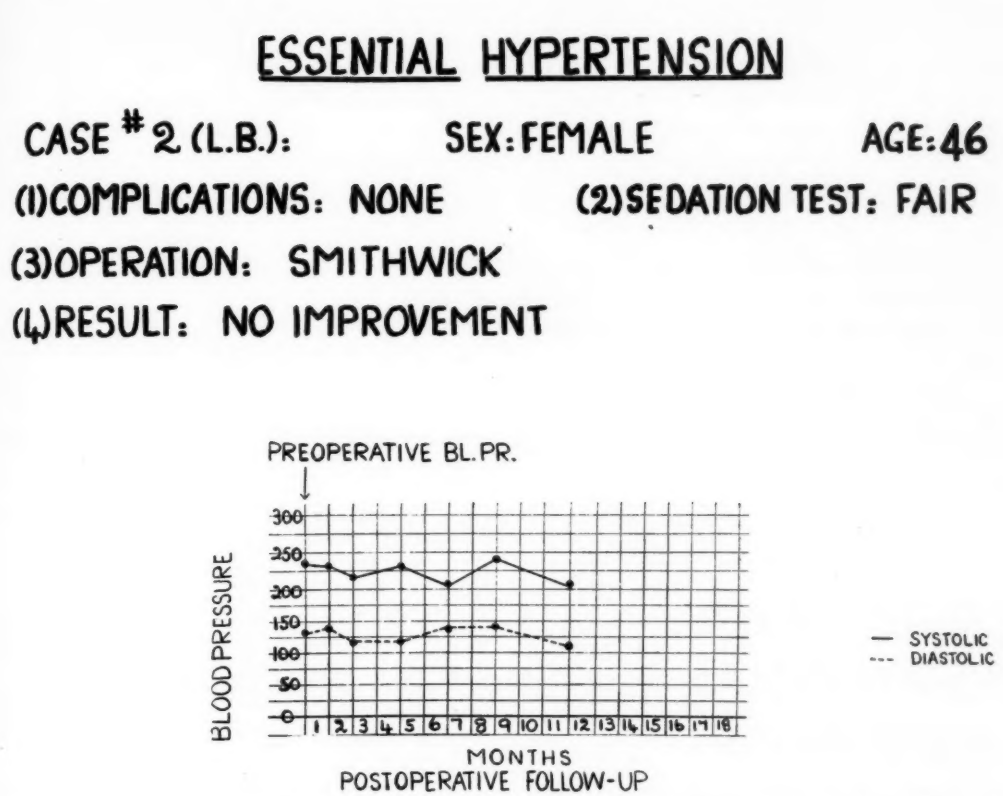


Fig. 10—Arteriosclerotic vascular changes and a very severe grade of hypertension are responsible for this failure. The patient is still alive but suffering from headache and other distressing symptoms.

view. No investigator has finally determined how extensive the sympathectomy should be to give a maximum good result in the average case. The problem resolves itself, therefore, into one of determining which operation will be most effective in the greatest number of patients for an extended period of years. Only a patient study of end results will eventually provide the answer. Present statistics indicate that the more extensive operations of Poppen and Grimson offer a higher percentage of good results than the lesser procedures of Peet, and Adson and Craig. The trend of all surgeons has obviously been toward more extensive denervations with the hope of improving the end results. Poppen[13b] has shown that radical denervation can be done without increasing the operative mortality. Grimson[9a] has aptly stated that "lowering of blood pressure is directly proportional to the extent of the sympathectomy and inversely proportional to the severity of the disease." The surgical approach is of secondary importance and had best be selected to suit the skill and individual operation of the surgeon concerned. I have pointed out that many operators advocate some type of extrapleural approach while others have found the transpleural route preferable.

My personal experience is limited to 11 cases. The Smithwick operation was employed in the first 4 and more extensive transthoracic resections in the last 7 cases. Follow-up shows 4 cases with good results, 2 improved and 2 with no benefit. There was 1 death, which occurred suddenly two days after the second stage operation and was apparently due to cardiac failure. The stellate ganglia were included in the resection in this

case. The patient had previously suffered a coronary occlusion and an episode of hypertensive encephalopathy and was a poor candidate for surgery. In the remaining 2 cases there have been normal blood pressures since operation, but the follow-up is too short for them to be significant. Examples typical of these various types of results are illustrated in figures 9, 10, 11 and 12.

The operation which I am at present employing resembles the Grimson procedure. It is done in two stages through a transthoracic approach (fig. 13). The stellate ganglion is spared, but all its connections are severed except that with the cervical sympathetic chain (fig. 14). The sympathetic trunk is then resected from the lower pole of the stellate ganglion (first thoracic ganglion) through the first lumbar ganglion and all splanchnic nerves excised. This provides an extensive denervation, but does not produce a Horner's syndrome which of course occurs if the stellate ganglion is excised. The stellate and celiac ganglia have not been removed routinely. It is thought that further experience with this aspect of the operation is necessary to determine whether resection of these ganglia should be advocated in every case.

I am pleased with this operative procedure to date. The exposure permits of a very radical nerve resection, as has been noted, but carries no more morbidity than the more or less standard procedure of Smithwick. The patient

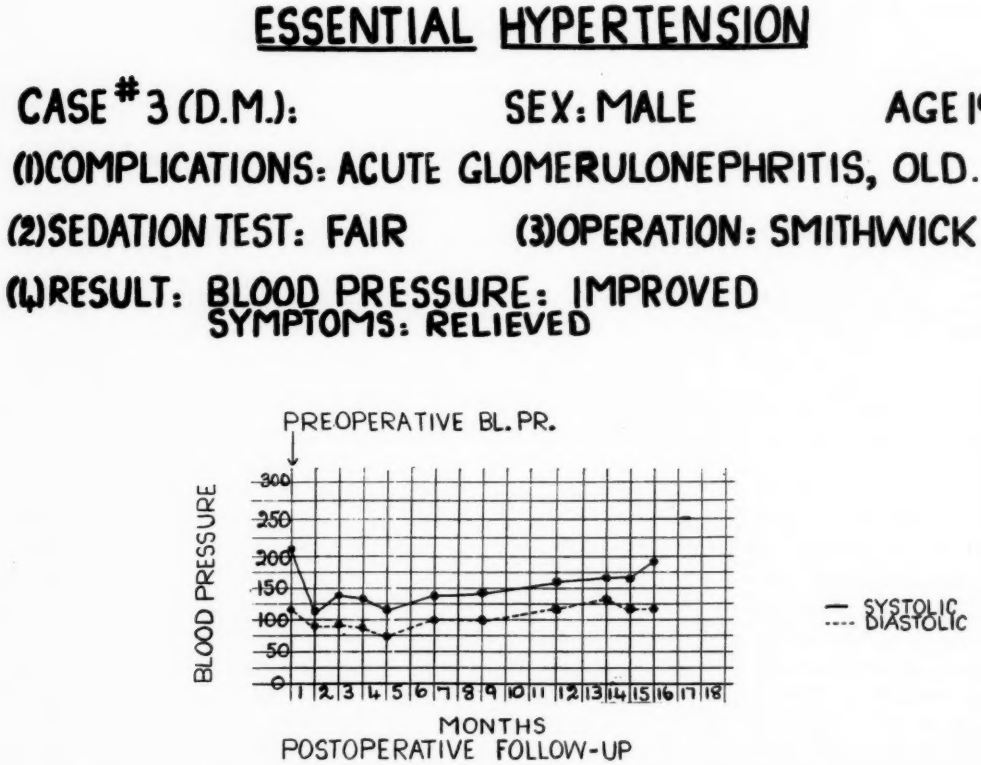


Fig. 11—This patient obtained a good response for six months following operation. He then noted a return of headaches, though not severe. There was a corresponding elevation of blood pressure, though not to preoperative levels. Further surgery is contemplated with the hope of relieving the hypertension permanently. This patient works hard during the day and goes to school each night.

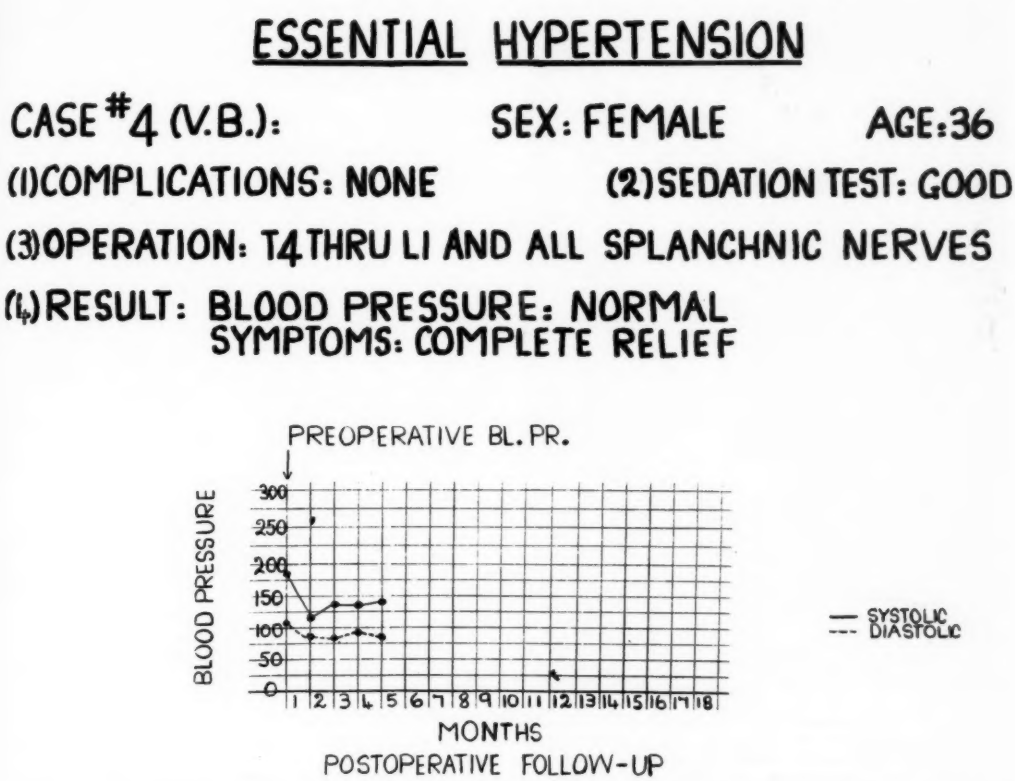


Fig. 12—The surgical approach was transthoracic in this case. This patient is high-strung and more active than average. The result has been excellent to date.

is hospitalized from six to ten days for each of the two stages and is sent home for three weeks between operations. Transient pleural effusion is common during the first week after surgery, but there has been no instance of wound infection or empyema.

A skillful, resourceful and thoroughly trained anesthetist is essential if splanchnicectomies are to be done successfully and safely. Different operators and anesthetists use different technics according to their preferences and abilities. We employ endotrachial anesthesia in every case, using nitrous oxide, cyclopropane, ether and oxygen in various combinations. Intravenous pentothal sodium accomplishes a quick induction and, in conjunction with the agents named, affords a supplementary action throughout the operation. Sudden drops in the blood pressure are common during the operation. They are combated with neosynephrin and transfusions of blood and plasma. One cannot overestimate the premium to be placed upon the services of a competent anesthetist during operations of this sort in which so much depends on good judgment and prompt action. Through being critical in the selection of patients and employing the somewhat radical operation just described I hope that the end results will be gratifying.

SUMMARY AND CONCLUSIONS

The criteria for the selection of patients for surgical treatment have been reviewed. The procedures of (1) Peet, (2) Adson and Craig, (3)

Fig. 13—This patient is shown sixteen days after the first stage operation. The location of the incisions and transthoracic approach are modeled upon the procedure of Grimson. The operating time for each stage is between two and three hours.

Smithwick, (4) Poppen and (5) Grimson have been briefly presented. The end results of these authorities have been summarized.

Recent trends in the surgical treatment of hypertension are: (1) more rigid criteria for the selection of cases for surgery; (2) a general tendency toward more extensive sympathetic denervations; and (3) a noticeable improvement in follow-up results as a result of (1) and (2).

Brief reference is made to my experiences in this field, and a series of 11 cases is reported.

BIBLIOGRAPHY

1. Poppen, J. L., and Lemmon, C.: The Surgical Treatment of Essential Hypertension, J. A. M. A. 134:1-9 (May 3) 1947.
2. Peet, M. M.; Woods, W. W., and Braden, S.: The Surgical Treatment of Hypertension; Results in Three Hundred Fifty Consecutive Cases Treated by Bilateral Supradiaphragmatic Splanchnicectomy and Lower Dorsal Sympathetic Ganglionectomy, J. A. M. A. 115:1875-1885 (Nov. 30) 1940.
3. Peet, M. M.: (a) Hypertension and Its Surgical Treatment by Bilateral Supradiaphragmatic Splanchnicectomy, Am. J. Surg. 75:48-68 (Jan.) 1948; (b) The Surgical Treatment of Hypertension, Proc. California Acad. Med. (1935-1936) pp. 58-90, 1937; (c) ————, and Isberg, E. M.: The Problem of Malignant Hypertension and Its Treatment by Splanchnic Resection, Ann. Int. Med. 28:755-767 (April) 1948.
4. Smithwick, R. H.: (a) The Surgical Treatment of Continued Hypertension; Some Suggestions about the Selection of Cases for This Form of Therapy, J. M. Soc. New Jersey 44:304-316 (Aug.) 1947; (b) Some Experiences with the Surgical Treatment of Hypertension in Man, Tr. & Stud., Coll. Physicians, Philadelphia 12:93-100 (Dec.) 1944; (c) A Technique for Splanchnic Resection for Hypertension; a Preliminary Report, Surgery 7:1-8 (Jan.) 1940.
5. Craig, W. M., and Abbott, K. H.: Surgical Considerations in the Treatment of Hypertension, Ann. Surg. 125:608-617 (May) 1947.
6. Grimson, K. S.: (a) The Surgical Treatment of Hypertension; Advances in Internal Medicine, New York, Inter-

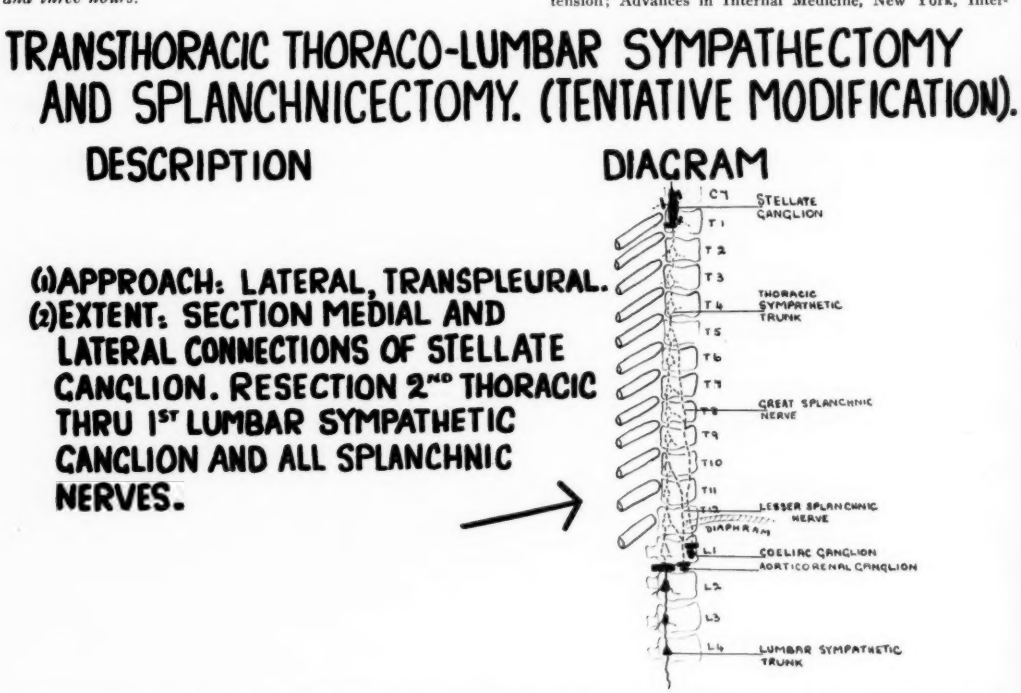


Fig. 14—This procedure, a modification of the Grimson operation, is employed by me at present. Results have been excellent to date, but final evaluation will require a longer follow-up and a much larger series of cases.

science Publishers, Inc., 1947, vol. 2, pp. 173-194; (b) Total Thoracic and Partial to Total Lumbar Sympathectomy and Celiac Ganglionectomy in the Treatment of Hypertension, Ann. Surg. 114:753-755 (Oct.) 1941; (c) Personal communication to the author, Feb. 10, 1948.
7. Dodson, A. I.: Relationship of Hypertension to Surgical Diseases of the Urinary Tract, Virginia M. Monthly 70:72-77 (Feb.) 1943.
8. Adson, A. W.; Craig, W. M., and Brown, G. E.: Surgery in Its Relation to Hypertension, Surg., Gynec. & Obst. 62:314-331 (Feb. no. 2A) 1936.
9. Adson, A. W.: Personal communication to the author, Feb. 3, 1948.
10. Craig, W. M., and Adson, A. W.: Hypertension and Subdiaphragmatic Sympathetic Denervation, S. Clin. North America 19:969-980 (Aug.) 1939.
11. Palmer, R. S.: Medical Evaluation of the Surgical Treatment of Hypertension, J. A. M. A. 134:9-14 (May 3) 1947.
12. Bartels, E. C.; Poppen, J. L., and Richards, R. L.: Surgical Treatment of Hypertension (Results in Fifty-Four Cases), Ann. Int. Med. 17:807-811 (Nov.) 1942.
13. Poppen, J. L.: (a) Technic for Supradiaphragmatic and Infradiaphragmatic Sympathectomy for Hypertension, Lahey Clin. Bull., 3:151-158 (July) 1943; correction 3:187-(Oct.) 1943; (b) Extensive Combined Thoracolumbar Sympathectomy in Hypertension, Surg., Gynec. & Obst. 84:1117-1123 (June) 1947.

Riverside Hospital.

This is the third of four papers on "Hypertension" presented at the St. Augustine Convention. The first appeared in the August issue.

Discussions of the entire symposium will be published at the end of the fourth paper.

Dacryocystorhinostomy

Marion W. Hester, M.D.
LAKELAND

Dacryocystorhinostomy is one of the most successful operative procedures. Oddly enough it was slow to be generally accepted even after its value was fairly well proved. It was first reported by Platner[1] in 1724. Following this early start little was done with the operation until Toti[1] published his technic in 1904. West[1] reported his intranasal operation in 1911. Ohm,[1] in 1912, was the first to suture flaps of mucosa to each other. Dupuy-Dutemps and Bourguet[1] described their procedure in 1920. In 1926 West[2a] reported 1,600 operations with 90 per cent cures. Several other large series had been reported by that time, always with a high percentage of cures. In spite of these successes the profession was slow to adopt the advance. Until a few years ago, in leading medical centers more tear sacs were being removed than were being subjected to dacryocystorhinostomy. It is likely that part of the delay in acceptance of the procedure was caused by the confusion created by rival claims of superiority of the intranasal operation on the one hand and the external approach on the other. Perhaps another reason has been the apparent technical difficulties in carrying out the operation. Whatever the cause of the delay, that period is certainly past.

The tremendous advantages the anastomosis operation enjoys over the older method in which the tear sac is removed are well established. The operation in most instances re-establishes normal drainage of tears from the conjunctival sac and removes a storehouse of chronic infection. West[2b] in 1931 with cultures showed that pathogenic bacteria disappear from the lacrimal sac in two or three days after operation. He also cited Mattice[2b] of the Axenfeld Clinic, who found pneumococci in 43 per cent of cases after extirpation of the lacrimal sac, some as long as several years afterward.

The major indication for the operation is obstruction of the lacrimal passages at the lower portion of the lacrimal sac or in the nasolacrimal duct. Other indications are after trauma or after dacryocystectomy; if part of the sac remains, the operation can still be done. If only the canaliculi remain, the ends can be implanted into the nose. There are no age limits, good results being reported from 4 to 76 years.

Read before the Florida Society of Ophthalmology and Otolaryngology, St. Augustine, April 11, 1948.

Contraindications are malignant disease of the sac or incurable disease of the sac such as tuberculosis or actinomycosis. Other conditions which do not contraindicate operation but should cause it to be postponed are acute dacryocystitis and extensive nasal disease. These conditions should abate before operation is done. It has been stated that the intranasal operation can be done when the sac is acutely inflamed. This might be considered one advantage of the intranasal technic.

The most commonly used operations are:

1. The West intranasal operation or its modifications. In this operation the lateral nasal wall adjacent to the lacrimal sac is removed by an intranasal approach. After exposure of the medial aspect of the sac, this wall of the sac is removed, allowing it to open into the nose. Frequently an intranasal operation must be preceded by a submucous resection and removal of the tip of the middle turbinate. Most writers express the belief that this type of operation is more apt to fail than the external operation with suturing of flaps because of early closure of the opening by granulation tissue or later bony closure.

2. The Toti-Mosher operation, in which the approach is through an external or skin incision. A bony opening is made into the nose medial to the sac, and the nasal mucosa and medial wall of the sac are removed in this area.

3. Transplantation of the severed end of the sac is another popular method. The sac is cut at the junction with the nasolacrimal duct, and the cut end is carried through an opening into the nose. Gifford,[3] at the meeting of the American Academy of Ophthalmology and Otolaryngology last fall, reported 103 cases in which the operation was performed by this method. In 78 per cent this procedure was successful, in 9.5 per cent it was partly successful, and in 13.5 per cent it was a failure.

4. Probably the most widely used of all tear sac operations is the Dupuy-Dutemps procedure. The anesthetic of choice is intravenous pentothal sodium. Local infiltration anesthesia combined with topical anesthesia in the nose is extensively used. I have used local anesthesia, and the operation can be done painlessly this way, but the method is not without disadvantages. The amount of hammering with mallet and gouge is considerable because the first opening is made in the thick bone of the anterior lacrimal crest. Most patients prefer to be asleep at the time the mallet and gouge are being used. In small children ether anesthesia is used, and the anesthetic is given through a catheter. After the patient is asleep, the nose is packed with gauze on the side to be operated upon.

The skin incision begins just above the level of the inner canthus and passes straight down for about 2 cm. along the border of the anterior lacrimal crest. Most descriptions call for a curved incision. There is no advantage in a curved incision, and if one uses a subcuticular stitch, the straight incision is much better. The first incision is down to the bone of the nose. From there it is an easy matter to elevate the periosteum down into the lacrimal fossa. This procedure automatically locates the sac. The field is kept free of blood by the use of a nasal or brain suction tip and by ligation of larger vessels. Later in the operation when the nose is entered, the field should be dry. Not infrequently there is troublesome bleeding from the nasal mucosa. This can often be stopped by packing a small pledget of one of the new absorbable hemostatic agents[4] against the bleeding point. Care must be taken not to traumatize the mucosa by sucking the flaps into the end of the suction tip.

The work on the sac can usually be done below the level of the inner canthus without cutting the canthal ligament. If cutting the ligament is necessary, this is done without fear of after-effects, but care is taken to resuture the ligament in the proper position. The initial opening in the bone may be made with a burr, but it has been observed that the nasal mucosa is much more likely to be torn by this method. The bony opening is enlarged with a Kerrison or Citelli rongeur. The window should be 10 to 15 mm. horizontally and 15 to 20 mm. vertically. This is roughly the size of an elongated dime. If there is more room, it should be made larger. The opening should extend down and forward as much as possible. This direction will promote better drainage through the new passages and keep the operation away from the middle turbinate and ethmoid cells. Vertical incisions are made in the lacrimal sac and nasal mucosa. Horizontal cuts are made at each end of the vertical incisions so that completed openings have the shape of a capital I. The posterior nasal and sac flaps are joined with two interrupted size 000 catgut sutures. The anterior nasal and sac flaps are united in a like manner except that it is well to catch

in this suture some fascia at the upper and lower poles of the incision just under the skin. This, when the incision is closed, draws the anterior mucosa forward insuring immediate patency of the new channel. The skin is usually closed with interrupted black silk sutures, and a pressure bandage applied. Half of the sutures are removed in forty-eight hours and the remainder in seventy-two hours. No suture scars result. A subcuticular stitch may be used instead if desired.

Penicillin is given subcutaneously for two to three days postoperatively. The wound heals with much less tissue reaction than when penicillin is not used. The dressing is left off after three to four days, and the patient is given penicillin solution to use as eye drops every three hours. The lower punctum is irrigated on the third or fourth day and again in a week. There is no other postoperative care unless complications develop. Usually if there is a failure, it is evident in a week.

Reported results vary somewhat, but in all series are consistently good. In one of the smaller series, that of Ayuyao and Yambao,[5] 27 cases were reported with 100 per cent success. Hallum[6] reported 50 odd cases with only 2 failures for a record of 98 per cent successes. Averback and Ivanova[7] reported 1,200 cases in 95 per cent of which there was relief from pus and mucus and in 96 per cent relief from tearing. From an extensive review of the literature the percentage of success is consistently higher in the operation in which anterior and posterior mucosal flaps are sutured together. In my small series of 10 cases there have been no failures. In another small series with which I was associated there was 1 failure and this was due to faulty operative technic. One cause of variation in results reported in different series is a lack of uniform criteria for judging success. Hughes, Guy and Bogart[8] pointed out that judgment of success or failure should be based on four points: 1. Clinical relief of symptoms. 2. Physiologic instillation test, in which stain such as fluorescein put in the conjunctival sac appears in the nose in ten to twenty minutes. 3. Irrigation test, in which fluid passes into the nose with irrigation. 4. Successful irrigation only after probing.

The most frequent causes of failure are: 1. Incorrect diagnosis. Care should be taken not to operate in cases of epiphora that result from some cause other than obstruction of the lower part of the lacrimal passages. In cases with tearing arising from other causes such as eversion of the lacrimal punctum cure will not be effected by dacryocystorhinostomy. 2. Faulty operative technic. Late closure is avoided by use of a large bony window and by sutured flaps of mucosa. An improperly placed window will not promote drainage as well and is apt to cause difficulty at the time of the operation, such as getting into ethmoid cells or the middle turbinate. Postoperative tissue reaction and granulation tissue formation are less when penicillin is used after the operation. In other cases failure can be avoided by not operating in the presence of too much pathologic change within the nose, preferably waiting until that condition has been corrected.

CONCLUSIONS

1. Dacryocystorhinostomy should always be done instead of dacryocystectomy except in rare instances.

2. The operation is successful in a high percentage of cases when performed well by any of several methods.

3. Most authors prefer and report better results with an external operation in which sutured mucosal flaps are used.

4. The operation can be performed by any capable eye, or ear, nose, and throat surgeon.

SUMMARY

The history of the development of dacryocystorhinostomy is given. Indications and contraindications are described. The most commonly used operations are listed and the Dupuy-Dutemps procedure is described. Results in several series are summarized. Causes of failure are discussed.

REFERENCES

1. Yanes, T. R.: Dacryocystorhinostomy; Some Interesting Points on Operation, Arch. Ophth. 26:12-20 (July) 1941.
2. West, J. M.: (a) The Intranasal Lacrimal Sac Operation, Arch. Ophth. 55:351-361 (July) 1926; (b) Clinical Results of the Intranasal Tear Sac Operation, Tr. Sect. Ophth., A. M. A., pp. 69-81, 1931.
3. Gifford, H.: In discussion of Hogan, M. J.: Dacryocystorhinostomy. To be published in Tr. Am. Acad. Ophth.
4. Tidrick, R. T.: Recent Advances in Surgical Hemostasis; Evaluation of Absorbable Agents, Tr. Am. Acad. Ophth. 52:20-30 (Sept.-Oct.) 1947.
5. Ayuyao, C. D., and Yambao, C. V.: Dacryocystorhinostomy, J. Philippine M. A. 21:391-393 (Aug.) 1941.
6. Hallum, A. V.: In discussion of Hogan, M. J.: Dacryocystorhinostomy. To be published in Tr. Am. Acad. Ophth.
7. Averback, M., and Ivanova, (Mme.): Ann. d'oculi. 172: 913-936 (Nov.) 1935; cited by Spaeth, E. B.: The Principles and Practice of Ophthalmic Surgery, ed. 3, Philadelphia, Lea & Febiger, 1944.
8. Hughes, W. L.; Guy, L. P., and Bogart, D. W.: Dacryocystorhinostomy, Surg., Gynec. & Obst. 73:375-380 (Sept.) 1941.

ADDITIONAL REFERENCES

Gaillard, M. T.: The Use of a Rubber Insert in Dacryocystorhinostomy, Med. Times 75:96-98 (April) 1947.
Goldman, J. L.: Rubber Catheter Used to Maintain the Patency of Ostium in Dacryocystorhinostomy, Arch. Otolaryng. 46:58-66 (July) 1947.
Williams, J. L. D., and Hill, B. G.: A Simplified Ex-

ternal Dacryocystorhinostomy, Brit. J. Ophth. 28:407-410 (Aug.) 1944.
Morgenstern, D. J.: Chronic Tearing Cured by Re-Establishment of Normal Tear Conduction Passages, Arch. Ophth. 38:775-795 (Dec.) 1947.
Gill, W. D.: Dacryocystorhinostomy; a Simplified Technic, Am. J. Ophth. 30:198-200 (Feb.) 1947.

Box 1133.

DISCUSSION

DR. WALTON B. WALL, JR., Orlando: Dr. Hester is to be congratulated on presenting a thorough description of this valuable operation. My experience with it has been rather limited. I have used this operation three times. In 2 cases there was relief of epiphora, and in 1 there was not. I think the reason for no relief in this case was that the obstruction was too high in the sac to permit adequate juncture of the nasal and lacrimal mucous membrane.

A thorough diagnostic study of the puncta, canaliculi, size of the sac, level of the obstruction and condition of the nose cannot be overemphasized. Obviously if the puncta or canaliculi are obstructed or in malposition, the operation will not offer relief. The level of the obstruction in the sac can be determined by gentle probing or by the use of roentgen studies after lipiodol instillation. The nasolacrimal duct runs in such a narrow channel and fibrous tissue is laid down so early that probing repeatedly or vigorously is usually a painful, useless procedure and is to be condemned.

Obstruction of the lower end of the duct may be caused by pressure of nasal polypi, hypertrophied inferior nasal turbinate bone, extreme deviation of the septum and chronic rhinitis. Anatomically the sac itself slopes gently outward while the duct to the nose inclines inward. At this point of junction there is an angulation as well as a constriction, and it is here that obstruction usually occurs. The wall between the sac and the ethmoid sinuses is thin, and thus an ascending infection from the nose or sinuses will soon involve the nasolacrimal mucosa and clog the duct with stricture formation.

Immediate postoperative results are almost invariably better than the final results. I believe that one should carry his postoperative observation at least three years before deriving a conclusion.

Postoperative washings with sulfathiazole solution have been reported of value. Sometimes a postoperative inflammatory connective tissue blocking will be prevented. If a connective tissue blocking of this nature does occur, a second operation is indicated.

DR. THOMAS M. EDWARDS, Tampa: It is a pleasure to discuss Dr. Hester's comprehensive paper. When I first examined his summary, which he kindly sent me, I thought there would be little that I could add; however, I should like to give the rhinologist's viewpoint.

I consider this condition a rhinologic one with ophthalmologic symptoms. As you know, there has been a great deal of rivalry between rhinologists and ophthalmologists in the care of this condition. Diggler, in a series of 120 cases, found all causes to be intranasal. A common cause of this condition is trauma, such as nasal fractures, nasal operations, antrum windows improperly placed and antrum punctures. Another is coagulation of the inferior turbinates. A colleague recently injected an inferior turbinate with sodium morrhuate, with resulting obstruction to the duct. Tumors of the nose and antrum, including nasal polyps, gumma, atrophic rhinitis and ethmoiditis are other frequently mentioned causes.

I believe if many of these intranasal conditions were properly treated, the operation would be unnecessary. In regard to the operation of choice, I disagree with the present company in that I think the intranasal operation is to be preferred. In my opinion its lack of popularity is due to the fact that the ophthalmologist, doing the operation, is not familiar enough with intranasal technic to perform it successfully. The intranasal operation has several advantages. First, it leaves no external scar with possible keloid formation; second, it does not injure the musculature of the eye; third, the middle turbinate is more easily preserved; and fourth, there is no possibility of fistula formation.

I enjoyed Dr. Hester's paper and think that closer cooperation between ophthalmologists and rhinologists will lead to a better handling of this problem.

DR. CARL S. MCLEMORE, Orlando: I should first like to commend Dr. Hester on his excellent presentation of the Dupuy-Dutemps method of treating chronic dacryocystitis. Since 1936, at which time Dr. Elmer Whitney and I reviewed three hundred and fifty papers pertaining to this subject, I have adhered to the dacryocystorhinostomy procedure essentially as described by Toti and Mosher. The Dupuy-Dutemps method is no doubt an improvement as the wall of the lacrimal sac is actually sutured to the mucous membrane of the nose. In the case of a large mucocele type sac this should not be at all difficult; however, in the case of a small sac I should think it might be quite difficult. It has been my practice to leave a silver wire in place for about ten days, thereby insuring an epithelial-lined fistula into the nose.

The use of a mixture of lipiodol and barium has been helpful in visualizing the sac and determining the point of obstruction. The procedure is simple and in my opinion well worth while. If this study reveals the obstruction to be in the nasolacrimal duct, the dacryocystorhinostomy is the procedure of choice.

Anyone doing this type of operation should be cognizant of the agger nasi cells, for when present they overlie the nasolacrimal duct, and when infected often involve both the tear duct and tear sac. Creation of a fistula through these infected cells may result in a failure of the operation and may also encourage spread of infection to the eye.

In closing I should like to thank Dr. Hester for bringing this most interesting subject to us and also for the opportunity of seeing his motion picture of the operative procedure.

DR. W. JEROME KNAUER, Jacksonville: I have certainly enjoyed Dr. Hester's paper and believe the operation he has presented here is the one of choice. As to the discussion of recurrence of symptoms after the operation, I recall at least 2 patients whom I have been able to follow over a period of three years who are well and have had no subsequent trouble.

DR. S. B. FORBES, Tampa: I appreciate Dr. Hester's excellent paper. This operation is not, however, as simple as the description given. To me one of the especially important points is to go through the thin bone in the lacrimal fossa and come forward into the frontal process of the maxilla with a rongeur. In this way excessive use of the chisel and hammer is avoided. I think the crux of the suturing is in the use of the special lacrimal atraumatic needle with No. 000 chromic catgut. The needle is so small and of such curvature that it is rather easy to handle.

DR. HESTER, concluding: I thank the discussors for the many interesting points brought out.

I heartily agree with Dr. Wall that repeated or vigorous probing is to be condemned. It has been my practice to probe gently once or twice and if this is unsuccessful to go ahead with surgery.

Dr. McLemore points out that agger nasi cells are sometimes present and overlie the nasolacrimal duct. I should wait for this condition to present itself before changing the method of operation. I am opposed to the routine curettement of this area of the nose. Every effort should be made to preserve the nasal mucosa to form flaps. This will insure adequate and early formation of an epithelial lining for the new tract. If the bony opening is made sufficiently far forward and downward, complicating nasal structures will in most cases be avoided.

Electroshock Therapy

James Benson O'Connor, M.D.
CHATTAHOOCHEE

Since the introduction of electroshock therapy by Bini[1] in 1938, there has been widespread use of this method of therapy in all types of psychiatric disorders. It would no doubt be difficult to discover a single mental institution in any part of the world which does not have a "shock machine," and there are probably few psychiatrists in private practice in this country who do not include such an instrument in their office equipment. In many circles it has apparently become the most essential adjunct of psychiatric practice. Certainly among the laity it has become so associated with the most advanced therapies in psychiatry that anyone professing to practice psychiatry without the use of such an instrument would be considered incompetent and woefully out of date. Without question, the general public has the utmost faith in its efficacy and considers it for all practical purposes a cure-all of all mental diseases. While most of this faith can be attributed to the glowing accounts in the lay publications, yet certainly some of it is the result of the indiscriminate use of this therapy by the profession itself. So widespread has been its use that it is becoming difficult to find a mental patient whose disease has been of any but the briefest duration who has not already at some time in the past experienced one or more courses of shock therapy. The literature is replete with multiple reports of series extending into the hundreds and thousands of "shock therapy cases" and often with conflicting conclusions. In the beginning, as is usual in all new types of therapies, the reports were invariably enthusiastic, but as time has passed these have become less favorable and even in some instances have been unfavorable. Ten years have now elapsed since its introduction and perhaps a more critical estimation is now possible. An attempt at such an evaluation will be made in this presentation.

During at least the first five years of electroshock therapy, the machine most commonly used was undoubtedly of the type originally used by Bini.[1] This consisted of a device for the utilization of ordinary electric light circuits operating on an alternating frequency of 50 to 60 cycles, with an attached voltmeter for regulating voltage, and an automatic time clock on relays for interrupting the flow of current in fixed multiples of tenths of seconds, usually varying from one tenth to five tenths of a second. In addition, some instruments had an attached low voltage trial circuit for measuring the resistance of ohms of 1 milliampere of current passing through the the patient's head. Some instruments had even more elaborate refinements, including a device which would set the exact milliamperage flow permitted through the patient's head, and often had various signal lights, all of which, while probably impressive, are scarcely necessary; since the resistance is so variable in individual patients and even differs in the same patient from day to day during shock treatment, and no definite relation exists between the resistance and the amount of current necessary to produce a convulsion, its measurement seems useless. It is therefore believed that the simplest instrument which regulates only the voltage and the time is adequate for all practical purposes.

As regards the voltage and the duration of current flow, many different technics are in present use. Some workers set the time interval at an arbitrary figure of two tenths or three tenths of a second, and increase the voltage until a convulsion occurs, while others do exactly the opposite, by keeping the voltage fixed and increasing the time interval. All sorts of rationalizations are given for each method, but none seems particularly impressive, since in the final analysis the object is to obtain a convulsion preferably by the use of the lowest voltage and briefest current flow. It appears that this criterion is obtained only by the empiric method of trial and error, first starting with a known average nonconvulsive setting and increasing until a convulsion is reached. In view of the known fact that the individual threshold usually increases with each convulsion, this factor is further noted to be particularly true. It might be mentioned that the threshold is lower in the male than in the female, and in the young than in the middle-aged and older patients. It is also higher in dehydrated and acutely excited patients, and in those given such an anticonvulsive drug as dilantin, and can be decreased by the use of pitressin. In addition, it has been noted that the threshold is higher on cold dry days.

Read before the Florida Neurology and Psychiatry Society, Second Annual Meeting, St. Augustine, April 11, 1948.

Regardless of the exact technic used, a suprathreshold amount of current will result in a convulsion. This is hardly distinguishable from a typical spontaneous epileptic seizure. It presents a sudden flexion of the whole body followed by a tonic phase of about ten seconds' duration, succeeded by a slowly beginning clonic phase which at first shows rapid and short movements, later developing slower movements of wider range, which gradually fade out after about thirty seconds, the whole accompanied by apnea. This sequence has been labeled as the immediate type. Two other common types are recognized, namely, the petit mal seizure which is manifested by a momentary flush, succeeded usually by a sudden flexing of the body, followed by immobility and apnea and unconsciousness, though occasionally exhibiting confused excited behavior, and the third type called the delayed convulsion. This latter exhibits the initial flexion followed by a period of relaxation of varying length, which is succeeded by the typical tonic and clonic phases, which, in this type, may be a unilateral response. The final coma and postconvulsive confusional states are shorter in electrically-induced than in spontaneous seizures.

Exactly what occurs to the brain when the current is applied is still a matter of much discussion. The primary difficulty results from a lack of postmortem material. There have been relatively few mortalities occurring during the course of shock therapy, and in nearly all of these cases the changes noted in the brain could be explained on the basis of such pathologic changes present as those incident to age, to syphilis of the central nervous system, to hypertension or to brain tumor. Among the most frequent findings have been diffuse petechial hemorrhages, degeneration of nerve cells, perivascular fibrosis and necrosis and demyelination of axis cylinders. It is debatable whether these changes are the direct resultants of the current on the parenchyma or are indirectly due to the vascular spasm and hemorrhage caused by the current, or whether the convulsion itself produces most of them. Gralnick[2] was of the opinion that at the present time there is not enough evidence to indicate that there occurs consistent specific brain pathology that is directly attributable to shock therapy. And what has been found has not manifested itself in clinical neurologic symptomatology. Liberson[3] quoted Rubinstein[3] as stating repeated electroshock produces first increase of slow rhythm and then depression of all electrical activity. Kalinowsky and Hoch[4] described the immediate appearance of slow waves over the entire cortex with the reappearance of the alpha waves when consciousness recurs; normalcy appears within five to thirty minutes after the first few seizures, but after more seizures the normal pattern persists, usually for from one to five weeks in patients receiving six or less convulsions, one to three months after seven to twelve convulsions and two to six months or even longer when more treatments are given. He concluded, however, that these findings are reversible and cannot be used for prognostic determinations nor to indicate the necessary duration of treatment. Pacella, Piotrowski and Lewis[5] concluded Rorschach testing on electroshock-treated schizophrenics fails to show evidence of deterioration in either the improved or unimproved cases, but gives definite evidence that no basic personality change takes place in schizophrenics as a result of electric convulsive treatment. One effect of a successful electric convulsive treatment observed by these authors was the improved capacity of the patient to be on his guard in disclosing his personality deficiencies.

Various studies and often conflicting findings have been reported as to what types of cases have the best prognostic expectations. It seems to be the consensus that the affective disorders have a higher rate of remissions, with the best results in reactive depressions. It is difficult to assess the value of this therapy in psychoneurosis, since some reports are very favorable and others are extremely discouraging. Gold and Chiarello[6] considered prognosis from the standpoint of existing symptomatology rather than definite diagnosis and concluded that the best prognosis can be expected in those cases presenting perplexity and confusion, muteness, fear of immediate personal threat or danger, as well as depression, and suicidal intent, with an exogenic precipitating factor, a duration of less than a year, sudden onset, a previous satisfactory adjustment to life, and in the age groups of 11 to 20 years and 51 to 60 years. It might be mentioned here that these same factors were also found in those cases showing the highest rate of spontaneous remission in untreated patients long before shock therapy appeared.

Until recently there appeared to be wide disagreement as to the optimum number of electric convulsive treatments to administer. Some held the view that in general patients with the affective disorders benefited with fewer than were necessary in the schizophrenics; others thought

that the best criterion was the degree of improvement evidenced during the courses of the treatments, while Kalinowsky and Hoch[4] believed that at least in schizophrenics good results could scarcely be expected with fewer than thirty or even forty convulsions. More recently, Savitsky and Karliner[7] reported that excellent results were obtained by them following the administration of a maximum of five electric shock treatments in each case and they cited a series of 34 such cases in which remissions had continued for periods up to twenty-eight months. In reviewing the literature, one notes that there seems to be a decided tendency towards the use of fewer electric shock treatments in each case than was formerly the practice.

A tendency to critical analyses of the value of electric shock therapy has recently appeared in the literature. Thus Hinko and Lipschutz[8] expressed the belief that the growing popularity of electroshock in the treatment of schizophrenia is based on its relative simplicity rather than on any actually established therapeutic superiority to other methods, though it proved to be superior to insulin or metrazol in the treatment of the affective disorders. They also concluded that relapses following shock therapy are of as frequent occurrence as in the untreated cases. They favored shock therapy, however, because it decreases the initial hospital stay by as much as two thirds of its duration in the untreated cases. Salzman[9] was even more critical and concluded that the evidence tends to indicate that shock therapy increases the frequency of readmission and evidently produces deterioration and personality changes which may explain this increased readmission rate.

Electric shock treatments were instituted at the Florida State Hospital just prior to the onset of the last war. Due to the depletion of the staff, this therapy was not fully utilized until after the cessation of the war and was employed chiefly during the war years in the most disturbed type of patient, usually in acutely disturbed manics. Since then it has been more extensively used, and treatments were all given with the standard type of instrument, being supplemented during the past year by the use of the brief stimulus apparatus. This report is concerned only with treatments by the standard type of instrument. By this method, there have been treated 959 patients, receiving a total of 20,215 electric shocks, or an average of 21.07 shocks per patient. Of this group, 341 patients were considered much improved constituting 35.6 per cent of the total treated. Of the manics treated, 52.1 per cent were classified as much improved. Of the schizophrenics treated, 37.3 per cent were classified as much improved. No inference can be satisfactorily drawn from these results, since they are in agreement with those reported by some workers and much lower than those mentioned by others, and even somewhat higher than have been reported in a few instances.

SUMMARY

As might have been gathered so far from this presentation, the subject of shock therapy is still in the polemic stage. A constant perusal of the literature from month to month often results in much bewilderment, since invariably some reports are highly flattering while others are decidedly pessimistic.

At the beginning of work on this paper, it had been hoped that definite and satisfying conclusions could be arrived at concerning the present status of shock therapy, but continuing investigation has proved disappointing due to the persisting controversial state of the subject. Certainly the results at the Florida State Hospital have not succeeded in developing any interesting discoveries nor served to settle any of the multiple conflicting reports. A series of 959 cases with improvement in 35.6 per cent is reported.

About the only conclusion that can justifiably be made is that electric shock does have a definite role in the therapy of mental diseases. Any conclusions as to the exact technic, prognosis and durability of remission are still certain to find enthusiastic and even vehement proponents and opponents.

REFERENCES

1. Bini, L.: Experimental Researches on Epileptic Attacks Induced by Electric Current, Am. J. Psychiat. (supp.) 94:172-174 (May) 1938.
2. Gralnick, A.: Fatality Incident to Electroshock Treatment; A Review of Subject and an Autopsy Report, J. Nerv. & Ment. Dis. 102:483-495 (Nov.) 1945.
3. Liberson, W. T.: Electroencephalography, Am. J. Psychiat. 104:456-461 (Jan) 1948.
4. Kalinowsky, L. B., and Hoch, P. H.: Shock Treatments and Other Somatic Procedures in Psychiatry, New York, Grune and Stratton, 1946.
5. Pacella, B. L.; Piotrowski, Z., and Lewis, N. D. C.: The Effects of Electric Convulsive Therapy on Certain Personality Traits in Psychiatric Patients, Am. J. Psychiat. 104: 83-91 (Aug.) 1947.
6. Gold, L., and Chiarello, C. J.: Prognostic Value of Clinical Findings in Cases Treated with Electric Shock, J. Nerv. & Ment. Dis. 100:577-583 (Dec.) 1944.
7. Savitsky, N., and Karliner, W.: Further Studies on Short Courses of Electric Shock Treatments, Am. J. Psychiat. 104:197-199 (Sept.) 1947.
8. Hinko, E. N., and Lipschutz, L. S.: Five Years After Shock Therapy; a Preliminary Report, Am. J. Psychiat. 104:387-390 (Dec.) 1947.
9. Salzman, L.: An Evaluation of Shock Therapy, Am. J. Psychiat. 103:669-679 (May) 1947.

Florida State Hospital.

FLORIDA MEDICAL ASSOCIATION

OFFICERS AND COMMITTEES

OFFICERS

JOSEPH S. STEWART, M.D., President.....*Miami*
WALTER C. PAYNE, M.D., President-elect.....*Pensacola*
HERBERT E. WHITE, M.D., 1st Vice Pres. ..*St. Augustine*
HORACE A. DAY, M.D., 2nd Vice Pres.....*Orlando*
REDDIN BRITT, M.D., 3rd Vice Pres.....*St. Augustine*
ROBERT B. McIVER, M.D., Sec'y-Treas.....*Jacksonville*
SHALER RICHARDSON, M.D., Editor.....*Jacksonville*

MANAGING DIRECTOR

STEWART G. THOMPSON, D.P.H.....*Jacksonville*
NELSON P. MOYER, Assistant.....*Jacksonville*

BOARD OF GOVERNORS

DUNCAN T. McEWAN, M.D., Chm...B-49.....*Orlando*
CHAS. L. FARRINGTON, M.D...AL-49.....*St. Petersburg*
THOMAS H. BATES, M.D...A-50.....*Lake City*
DAVID R. MURPHEY, JR., M.D...C-51.....*Tampa*
ROBERT T. SPICER, M.D...D-52.....*Miami*
SHALER RICHARDSON, M.D...PP-49.....*Jacksonville*
WILLIAM C. THOMAS, M.D...PP-50.....*Gainesville*
JOSEPH S. STEWART, M.D. (Ex Officio).....*Miami*
WALTER C. PAYNE, M.D. (Ex Officio).....*Pensacola*
ROBERT B. McIVER, M.D. (Ex Officio).....*Jacksonville*
HERBERT L. BRYANS, M.D...S.B.H.-49.....*Pensacola*
STEWART G. THOMPSON, D.P.H. (Advisory)...*Jacksonville*

SCIENTIFIC WORK

CHAS. J. COLLINS, M.D., Chm...AL-49.....*Orlando*
DANIEL A. McKINNON, M.D...A-49.....*Marianna*
FREDERICK K. HERPEL, M.D...D-50.....*West Palm Beach*
JERE W. ANNIS, M.D...C-51.....*Lakeland*
JAMES L. BORLAND, M.D...B-52.....*Jacksonville*

LEGISLATION AND PUBLIC POLICY

W. DUNCAN OWENS, M.D., Chm...D-52.....*Miami Beach*
PAUL J. COUGHLIN, M.D...AL-49.....*Tallahassee*
THOMAS H. BATES, M.D...A-49.....*Lake City*
HAROLD D. VAN SCHAICK, M.D...B-50.....*Miami Beach*
ORION O. FEASTER, M.D...C-51.....*St. Petersburg*
JOSEPH S. STEWART, M.D. (Ex Officio).....*Miami*
ROBERT B. McIVER, M.D. (Ex Officio).....*Jacksonville*

MEDICAL EDUCATION AND HOSPITALS

THOMAS C. KENASTON, M.D., Chm...B-52.....*Cocoa*
JOHN K. TURBERVILLE, M.D...A-49.....*Century*
BASCOM H. PALMER, M.D...D-50.....*Miami*
ALVORD L. STONE, M.D...C-51.....*Tampa*

PUBLIC RELATIONS

FRANK G. SLAUGHTER, M.D., Chm...AL-49...*Jacksonville*
LEIGH F. ROBINSON, M.D...D-49.....*Ft. Lauderdale*
ALVIN L. MILLS, M.D...C-50.....*St. Petersburg*
EDWIN H. ANDREWS, M.D...B-51.....*Gainesville*
FRANCIS T. HOLLAND, M.D...A-52.....*Tallahassee*

NECROLOGY

REDDIN BRITT, M.D., Chm...B-51.....*St. Augustine*
JOSEPH J. RUSKIN, M.D...AL-49.....*Tampa*
THOMAS W. TAYLOR, M.D...C-49.....*Sarasota*
THOMAS O. OTTO, M.D...D-50.....*Miami*
CHARLES H. DAFFIN, M.D...A-52.....*Panama City*

MEDICAL POSTGRADUATE COURSE

TURNER Z. CASON, M.D., Chm...B-51.....*Jacksonville*
JACK Q. CLEVELAND, M.D...AL-49.....*Coral Gables*
E. STERLING NICHOL, M.D...D-49.....*Miami*
GEORGE L. COOK, M.D...C-50.....*Tampa*
WILLIAM C. ROBERTS, M.D...A-52.....*Panama City*

CANCER CONTROL

ALFRED G. LEVIN, M.D., Chm...AL-49.....*Miami*
CHAS. J. COLLINS, M.D...B-49.....*Orlando*
LLOYD J. NETTO, M.D...D-50.....*West Palm Beach*
GEORGE W. MORSE, M.D...A-51.....*Pensacola*
HAROLD O. BROWN, M.D...C-52.....*Tampa*

MEDICAL ECONOMICS

JOHN D. MILTON, M.D., Chm...AL-49.....*Miami*
JOSEPH H. RUTTER, M.D...B-49.....*Daytona Beach*
HARRISON A. WALKER, M.D...D-50.....*Miami*
HAROLD O. BROWN, M.D...C-51.....*Tampa*
MERRITT R. CLEMENTS, M.D...A-52.....*Tallahassee*

VENEREAL DISEASE CONTROL

JACK A. McKENZIE, M.D., Chm...AL-49.....*Miami*
J. POWELL ADAMS, M.D...A-49.....*Panama City*
WILEY M. SAMS, M.D...D-50.....*Miami*
JAMES L. ESTES, M.D...C-51.....*Tampa*
FRANK J. PYLE, M.D...B-52.....*Orlando*

INTERRELATIONSHIP

HENRY J. PEAVY, M.D., Chm...D-50.....*Ft. Lauderdale*
REAVES A. WILSON, M.D...AL-49.....*Sarasota*
SIMON E. DRISKELL, M.D...B-49.....*Jacksonville*
LAMAR L. LANCASTER, M.D...C-51.....*Bartow*
J. POWELL ADAMS, M.D...A-52.....*Panama City*

TUBERCULOSIS AND PUBLIC HEALTH

ALVIN L. STEBBINS, M.D., Chm...A-52.....*Pensacola*
ROBERT F. MIKELL, M.D...AL-49.....*Miami*
LOUIE LIMBAUGH, M.D...B-49.....*Jacksonville*
SCHEFFEL H. WRIGHT, M.D...D-50.....*Miami*
FRANK V. CHAPPELL, M.D...C-51.....*Tampa*

STATE CONTROLLED MEDICAL INSTITUTIONS

LLOYD J. NETTO, M.D., Chm...D-49.....*West Palm Beach*
EDWARD H. WILLIAMS, M.D...AL-49.....*Miami*
MEREDITH MALLORY, M.D...B-50.....*Orlando*
EDGAR WATSON, M.D...C-51.....*Lakeland*
WILLIAM D. ROGERS, M.D...A-52.....*Chattahoochee*

MATERNAL WELFARE

HAROLD G. NIX, M.D., Chm...AL-49.....*Tampa*
S. CARNES HARVARD, M.D...C-49.....*Brooksville*
BENJAMIN A. WILKINSON, M.D...A-50.....*Tallahassee*
RICHARD F. STOVER, M.D...D-51.....*Miami*
E. FRANK McCALL, M.D...B-52.....*Jacksonville*

CHILD HEALTH

WARREN W. QUILLIAN, M.D., Chm...D-50.....*Coral Gables*
GUNNARD J. ANTELL, M.D...AL-49.....*Coral Gables*
LUTHER W. HOLLOWAY, M.D...B-49.....*Jacksonville*
MANUEL A. PEREZ, M.D...C-51.....*Tampa*
EGBERT V. ANDERSON, M.D...A-52.....*Pensacola*

CONSERVATION OF VISION

NATHAN S. RUBIN, M.D., Chm...A-52.....*Pensacola*
ORVILLE N. NELSON, M.D...AL-49.....*St. Petersburg*
CARL E. DUNAWAY, M.D...D-49.....*Miami*
JOSEPH W. TAYLOR, M.D...C-50.....*Tampa*
CHARLES W. BOYD, M.D...B-51.....*Jacksonville*

ADVISORY TO WOMAN'S AUXILIARY

J. LLOYD MASSEY, M.D., Chm...A-52.....*Quincy*
WHITMAN H. McCONNELL, M.D...AL-49...*St. Petersburg*
ANNETTE M. FEASTER, M.D...C-49.....*St. Petersburg*
EDGAR W. STEPHENS, JR., M.D...D-50...*West Palm Beach*
CHARLES E. TRIBBLE, M.D...B-51.....*DeLand*

REPRESENTATIVES TO INDUSTRIAL COUNCIL

JULIUS C. DAVIS, M.D., Chm...A-52.....*Quincy*
L. WASHINGTON DOWLEN, M.D...AL-49.....*Miami*
FRANK L. FORT, M.D...B-49.....*Jacksonville*
R. RENFRO DUKE, M.D...C-50.....*Tampa*
EDWARD W. CULLIPHER, M.D...D-51.....*Miami*

COUNCILOR DISTRICTS AND COUNCIL

HERMAN WATSON, M.D., Chm...AL-49.....*Lakeland*
First—WILLIAM P. HIXON, M.D...1-50.....*Pensacola*
Second—IRBY H. BLACK, M.D...2-49.....*Live Oak*
Third—CHARLES C. GRACE, M.D...3-50....*St. Augustine*
Fourth—RABUN H. WILLIAMS, M.D...4-49.....*Eustis*
Fifth—JOHN M. BUTCHER, M.D...5-49.....*Sarasota*
Sixth—H. QUILLIAN JONES, M.D...6-50.....*Ft. Myers*
Seventh—ERASMUS B. HARDEE, M.D...7-50....*Vero Beach*
Eighth—RUSSELL B. CARSON, M.D...8-49..*Ft. Lauderdale*

A. M. A. HOUSE OF DELEGATES

HOMER L. PEARSON, JR., M.D., Delegate.....*Miami*
WILLIAM M. DAVIS, M.D., Alternate.....*St. Petersburg*
(Terms expire Dec. 31, 1948)
LOUIS M. ORR, II, M.D., Delegate.....*Orlando*
WILLIAM Y. SAYAD, M.D., Alternate....*West Palm Beach*
(Terms expire Dec. 31, 1949)

The Journal of The Florida Medical Association

Owned and published by Florida Medical Association, Inc.
P. O. Box 1018 (Fla. Theater Bldg.)
Jacksonville 1, Florida

EDITOR
Shaler Richardson, M.D.....*Jacksonville*

ASSISTANT EDITOR
Webster Merritt, M.D.....*Jacksonville*

MANAGING EDITOR
Stewart G. Thompson, D.P.H.....*Jacksonville*

ASSOCIATE EDITORS
George L. Cook, M.D.....*Tampa*
J. Maxey Dell, Jr., M.D. .....*Gainesville*
Frank D. Gray, M.D.....*Orlando*
Homer L. Pearson, M.D.....*Miami*
James H. Pound, M.D.....*Tallahassee*
Wilson T. Sowder, M.D.....*Jacksonville*

COMMITTEE ON PUBLICATION
Shaler Richardson, M.D., Chairman.....*Jacksonville*
Arthur L. Walters, M.D.....*Miami Beach*
Herman Watson, M.D.....*Lakeland*

ABSTRACT DEPARTMENT
Kenneth A. Morris, M.D., Chairman.....*Jacksonville*
Orion O. Feaster, M.D.....*St. Petersburg*
Robert T. Spicer, M.D.....*Miami*

Board of Past Presidents

Robert H. McGinnis, M.D., 1915.....*Jacksonville*
William E. Ross, M.D., 1919.....*Jacksonville*
H. Marshall Taylor, M.D., 1923.....*Jacksonville*
John C. Vinson, M.D., 1924.....*Tampa*
John S. McEwan, M.D., 1925.....*Orlando*
H. Mason Smith, M.D., Chm., 1926.....*Tampa*
John A. Simmons, M.D., 1927.....*Arcadia*
Frederick J. Waas, M.D., 1928.....*Jacksonville*
Julius C. Davis, M.D., 1930.....*Quincy*
William M. Rowlett, M.D., 1933.....*Tampa*
Homer L. Pearson, M.D., 1934.....*Miami*
Herbert L. Bryans, M.D., 1935.....*Pensacola*
Orion O. Feaster, M.D., 1936.....*St. Petersburg*
Edward Jelks, M.D., 1937.....*Jacksonville*
W. Henry Spiers, M.D., 1938.....*Orlando*
Leigh F. Robinson, M.D., 1939.....*Ft. Lauderdale*
Walter C. Jones, M.D., 1941.....*Miami*
Eugene G. Peek, M.D., 1943.....*Ocala*
John R. Boling, M.D., 1944, 1945.....*Tampa*
Shaler Richardson, M.D., Sec'y., 1946.....*Jacksonville*
William C. Thomas, M.D., 1947.....*Gainesville*

MEDICAL DISTRICT MEETINGS
OCTOBER 18-22, 1948

Dr. Herman Watson, Chairman of the Council, the eight Councilors and the secretaries of the cooperating county medical societies have completed the programs and arrangements for entertainment. The fall meetings present an excellent opportunity for members to meet and enjoy the carefully selected scientific papers which have been arranged for the programs.

The officers of the Association will bring pertinent information concerning activities on a statewide scope that should be of particular interest to every physician. This is an opportunity to get a bird's eye view of some of the present day questions that are facing practitioners. One of the outstanding advantages of the medical district meetings is the informality which stimulates questions and answers.

Printed programs will be mailed to all members of the Association. Each member is urged to attend as many of these medical district meetings as possible. The meetings will open at 2:30 p.m. on the dates specified below.

Monday, October 18, 1948

Live Oak

Suwannee County Country Club
(4 miles east of Live Oak, Route 90)

Address of Welcome, C. LeRoy Adams, Jr., President, Madison-Suwannee County Medical Society

"Saddle Block Spinal Analgesia for Obstetrics," Thomas H. Bates, Lake City

Address (by invitation), "Conservative Management of Eclampsia," Stephen L. Watson, Jr., Lakeland

Tuesday, October 19, 1948

Daytona Beach

Ocean Dunes Club

Address of Welcome, Charles E. Tribble, President, Volusia County Medical Society

"The Toxemias of Pregnancy," E. Frank McCall, Jacksonville

Address (by invitation), "Fractures of Neck of Femur," Herschel G. Cole, Tampa

Wednesday, October 20, 1948

Bradenton-Sarasota

Sarasota Bay Country Club
(6 miles south of Bradenton)

Address of Welcome, Millard P. Quillian, President, Manatee County Medical Society, and John M. Butcher, President, Sarasota County Medical Society

"Type of Anesthesia in Hernia with Special Reference to the Aged," Joseph L. Selden, Jr., Fort Myers

"State Blood Bank Program," David R. Murphey, Jr., Tampa

Friday, October 22, 1948

West Palm Beach

Flotilla Club
(4850 Poinsettia Avenue)

Address of Welcome, Victor Clarholm, President, Palm Beach County Medical Society

"Practical Considerations Concerning Management of Nephritis," Scottie J. Wilson, Fort Lauderdale

Address (by invitation), "Total Laryngectomy," J. Brown Farrior, Tampa

After the scientific assemblies, addresses will be given at each of the four medical district meetings by the officers of the Association:

Joseph S. Stewart, President
Walter C. Payne, President-elect
Robert B. McIver, Secretary-Treasurer
Webster Merritt, Assistant Editor of The Journal
Duncan T. McEwan, Chairman, Board of Governors

At 5:45 p.m., refreshments will be served by the host societies. Dinner will follow at 6:30 p.m.

TWISTED FIGURES

While the Brookings Report[1] should by no means be construed in a manner to lull a single physician into complacency or a sense of security regarding his profession, physicians should find satisfaction in the way in which this able study reiterates with particular clarity certain facts medical leaders have emphasized again and again.

That figures do not lie is a common adage. But they can be made to be misleading and can even be manipulated to give a false impression. The Report thoroughly analyzes the selective service statistics showing high rejection rates of young men disqualified for military service because of defect and disease and points out many inaccuracies and confusions. Draft rejections on the basis of lack of height, loss of a finger, or other minor impairment could hardly offer proof of national health deficiency. Too, as the need for manpower increased, standards were lowered, permitting acceptance of many men originally rejected.

The conclusion reached—that these statistics "are unreliable as a measure of the health of the Nation and cannot be used to show the extent of the medical needs of the country as a whole"—has been the contention of the medical profession all along. So convincing are the reasons cited that one finds concurrence at this point even in the critical review of the Report published at the instigation of such rank proponents of compulsory health insurance as Senators James E. Murray and Claude Pepper. In this critique it is acknowledged that the selective service statistics "have sometimes been overused in an endeavor to demonstrate a 'shocking' state of health among young American men."

In addition to the use of these statistics to convey "an exaggerated impression of the lack of medical care," there is a wholly different aspect of juggling figures. From the lay viewpoint, what price dollars? In evaluating the expenditure of his dollars, where in the scale of values does the individual citizen place medical care? Is it his prerogative to make this decision, or must his government force upon him by law its decision in the matter?

The research incident to the Brookings Report indicates that the large majority of American families have the resources to pay for adequate medical care if they elect to give it a high priority among the several objects of expenditure. It is noted that curtailment of luxury items in food, clothing and shelter and reduction in expenditures for alcoholic liquors, automobile ownership and operation, tobacco and recreation would permit a material increase in medical care.

Too often, the disinclination of the average family to give medical care priority over nonessentials is confused with inability to pay. "The issue," the Report concludes, "is not whether they can afford medical care but whether they should be compelled by law to pool their risks and to give payment for medical care a top priority. The major alternative for people with ability to pay is to leave them free to determine for themselves what medical care they desire and whether they will pool their risks through voluntary arrangements."

1. Bachman, George W., and Meriam, Lewis: The Issue of Compulsory Health Insurance, Washington, D. C., The Brookings Institution, 1948. This is the third in a series of editorials commenting on the Brookings Report.

WORLD MEDICAL ASSOCIATION

Doubtless many members of the Florida Medical Association have kept abreast of the rapid strides made by the World Medical Association since its organization in Paris in September 1947. With commendable vigor it has attacked the many international problems affecting medicine at the present time, and it is hoped that the movement will aid in the establishment of the genuine peace of which the world stands so much in need.

Dr. Louis H. Bauer of New York is the general secretary of this promising organization of global scope. Through his office surveys are now in progress concerning the status of the physician in different countries of the world, the standards of medical education, the qualifications and rating of specialists, the extent of

recognition of cultist practice, and the advertising of medical products. A bulletin is to be issued periodically reporting the results of these studies and affording information regarding "the manner in which physicians throughout the world are joining to sustain the ethics and the ideals that have animated the medical profession for thousands of years."[1]

Every physician who participates in civic and medical affairs has an interest in the studies undertaken by this worthy organization and no doubt adds his endorsement to that of the House of Delegates of the American Medical Association, other medical organizations and great medical industries. It would be of interest to know how many members of the Association here in Florida have added to their blessing tangible evidence of their support.

Opportunity is given individual physicians to become Founder Sustaining Members of the World Medical Association. The annual membership dues are $10, and individual members will receive the bulletin of the World Medical Association and certificates of membership in the United States Committee, established to aid its work. Many physicians are subscribing for five years in advance to help place the organization promptly on an established basis. To share in this worthy cause by affiliating with the United States Committee of the World Medical Association, physicians may address the World Medical Association at its permanent offices in New York City at 2 East 103rd Street.

1. The World Medical Association, J. A. M. A. 137:1133-1134 (July 24) 1948.

HOW ACTIVE IS YOUR COUNTY MEDICAL SOCIETY?

When the American Medical Association came into being in May 1847, "a nobler spectacle was never presented by the medical profession of any age or county," according to Dr. N. S. Davis, able medical historian and moving spirit in its inception. The association immediately entered upon the work of "cultivating medical science, fostering our own medical literature and elevating the medical character." The influence of the new national organization was reflected at once in the reanimation and increased activity of old associations and societies, in the formation of new ones, in more free and liberal intercourse among medical men, and in a more lively and universal sense of the high aims, interests and responsibilities of the profession.

At the first annual meeting the next year President Nathaniel Chapman paid eloquent tribute to the delegates present in these words:

> This assemblage presents a spectacle of moral grandeur delightful to contemplate. Few of the kind have I ever witnessed more imposing in its aspect, and certainly none inspired by purer motives, or having views of a wider range of beneficence . . .
>
> The pilgrimage you have performed in coming hither, at so many sacrifices of comfort and convenience, evinces the ardour of your zeal, and the loyalty of your devotion . . .

Now, a century later, a distinguished trustee of that association deplores the overorganization of medicine, with the specialty societies in many instances reducing interest in the activities of the county medical society, lowering attendance at its meetings and diminishing its influence in the community. Dr. Louis H. Bauer, president of the Medical Society of the State of New York and executive director of the World Medical Association, makes a timely plea for more activity within county medical societies.

That his plea should be heeded can hardly be questioned in view of the times. With the present deep involvement of medicine in the solution of community problems and the guidance of social forces, surely there has never been a greater need for the alert and powerful county medical society.

There rests upon your county medical society not alone the responsibility for its influence as a local group. Through it, in addition, must channel the effectiveness of the Florida Medical Association and the American Medical Association.

And where, in turn, does your particular county medical society look but to you—the individual physician—for its power, its usefulness in the community—its very life? With Dr. Bauer we ask: Are you doing all you can to strengthen the arm and to forward the work of your county medical society?

PERSONAL WEAPONS

Many a man prides himself on being quick on the trigger, and no man likes to think that he is defenseless. It is doubtful, however, whether even the doctor, who knows his anatomy, realizes the potentialities of the personal weapons nature has provided. Greater knowledge might help him not only to defend himself if need be but also to explain better some of the wounds he is called

upon to treat. The law enforcement officer, carefully trained in the use of these weapons, offers valuable tips.

Personal weapons are those parts of the body which can be used for self defense and for counterattack. These weapons are exceedingly important in defensive tactics, and no one who uses them with intelligence and any degree of skill need consider himself unarmed.

There are special blows to fit the body's numerous structural weaknesses which are decidedly vulnerable to attack. Take, for example, the hand as a weapon. To make the edge-of-hand and edge-of-fist blows most effective, one uses a chopping motion across the body with the palm down or strikes downward with the palm facing in. Reserve these blows for the bridge of the nose, lips, throat, back of the neck, spine or kidneys. Hold the fingers rigid for the finger-jab to the throat or eye and for the extended-knuckles blow to the temple, but deliver the heel-of-hand blow to the chin upward at close range with the hand slightly cupped. Also particularly effective on the chin is the fist blow, but the fist and edge-of-fist blows have many uses. The cupped hand blow is for the ears.

The elbow, fully flexed, is a handy weapon, used most effectively for blows delivered toward the rear or outward across the body. In the forearm blow, from shoulder height with elbow fully flexed, the arm swings sharply forward and toward the inside.

The foot proves useful for kicking forward with the toe, to the side with the edge, ball and heel, and stamping down with the heel. At times, short snappy kicks, using the forward foot, are extremely effective on shin or knee. Then there is the knee lift to the face and groin, with the knee fully flexed.

Nor is the head to be overlooked as a reasonably formidable weapon, which one should not hesitate to use on occasion. Even the amateur will find it more expedient to butt it in self defense against an adversary than against the proverbial stone wall.

And remember—if the opponent is the stronger, use his strength to his disadvantage. If he pushes, pull. Outsmart him. The brain, after all, is the indispensable weapon, the one that makes personal weapons man's first line of defense.

PROFESSIONAL SERVICES IN HOSPITALS

One of the current pressing problems of the medical profession and the hospitals is the relation between hospitals and staff physicians in certain branches of medicine—anesthesiologists, pathologists, roentgenologists and physical therapists in particular. The matter is important. Failure to attack the problem intelligently now will only prolong and doubtless aggravate the present detrimental effect upon the medical profession, the hospitals and the innocent bystanders, the patients.

Inevitably, blunders have been made. But it is perhaps true that they are not so much to be condemned as is failure to correct them. To quote comment offered editorially elsewhere, "The mistake is common when businessmen, occupied chiefly with balance sheets, have jurisdiction over institutions that are staffed by professional men jealous of the ethics and etiquette of their profession. Even the physician turned director is too often found, at least in the eyes of his former colleagues, worshipping the golden calf instead of heeding the commandments written in stone."[1]

It would seem that the state medical societies might well assume leadership in the solution of this vexing problem. The Massachusetts Medical Society has pioneered the way in a constructive report of a special committee appointed "to define hospital services and medical services and to establish the proper relation between physicians and hospitals."[1] It is suggested that this approach is worthy of emulation and that "discussion of this report by similar groups in the various states might be highly useful in evolving a workable and fair practice by which all parties at interest could benefit."[2]

The report defines as medical hospital services those "other than administrative rendered by a registered physician directly to or in behalf of an individual patient for the obtainment and interpretation of data, including consultation and advice, for the diagnosis, treatment, and prevention of disease." Specifically, these services are defined as embracing "the general and special practice of medicine, surgery, and obstetrics, and the practice of the related specialties including anesthesiology, physical medicine, radiology, pathology, and clinical pathology . . . ."

Recommended in the report is the basic principle "that each department (so far as possible)

be self-supporting and that neither the hospital nor the physician rendering the service should exploit the patient or each other. The basis of financial arrangement, however, might be salary, commission, fees or any other method that would best meet the local situation."

Certain aspects of the whole matter are open to debate, and the questions arising are by no means easily answered. Nevertheless, for the medical profession to ignore the problem is not merely to evade a grave responsibility but also to invite attempts at solution from less qualified agencies. A great deal of further study and experimentation on this moot subject is necessary.

1. New England Journal of Medicine, April 29, 1948, p. 640.
2. New York State Journal of Medicine, July 1, 1948, pp. 1457-1458.

SOUTHERN MEDICAL ASSOCIATION MEETS IN MIAMI—OCTOBER 25-28

Florida is honored to have the Southern Medical Association return this month to its famous playground and convention city for the annual meeting for the second time in two years. Miami is a royal host. This time Dinner Key, the city's new convention center, provides the setting. And an ideal setting it is. Through a century this tiny key jutting into beautiful Biscayne Bay has courted fame, first locally as a picnic ground and later as an internationally famous air base and terminal. Since the recent war the City of Miami has purchased the Dinner Key hangars and converted two of them into a huge auditorium for housing conventions and expositions, and the marina, the old Pan American terminal building, is now a restaurant.

Monday, October 25, will be "Miami Day" with a clinical program entirely by the local profession. Beginning on Tuesday and continuing through Thursday, October 26-28, the twenty-one sections will each have one half-day session, as the streamlined type of program adopted during the war will be continued this year. An excellent scientific program and extensive exhibits all presented in a convenient and compact setting offer a wide variety of material of current scientific interest to every physician.

With sailboats, yachts and fishing craft dotting the limpid water of the Bay for background and "Fun After We Work" the keynote for all the recreational diversion the area offers, the Forty-Second Annual Meeting of the Southern Medical Association promises to be even more popular than the highly successful 1946 meeting.

The Florida Medical Association bids the physicians of the South and their guests a hearty welcome.

at
Miami. Florida

AN INSPIRING MEDICAL MEETING—the Annual Meeting of the Southern Medical Association in Miami, Florida, October 25-28. In the general clinical sessions by Miami physicians and surgeons, the twenty-one sections and the scientific and technical exhibits, every phase of medicine and surgery will be covered—the last word in modern, practical, scientific medicine and surgery. Addresses and papers by distinguished clinicians not only from the South, but from many parts of the United States.

REGARDLESS of what any physician may be interested in, regardless of how general or how limited his interest, there will be at Miami a scientific program and recreational facilities to challenge his every interest and make it worth-while for him to attend.

ALL MEMBERS of state and county medical societies in the South are cordially invited to attend. And all members of state and county medical societies in the South should be and can be members of the Southern Medical Association. The annual dues of $5.00 include the Southern Medical Journal, a journal valuable to physicians of the South, one that each should have on his reading table.

SOUTHERN MEDICAL ASSOCIATION
Empire Building
BIRMINGHAM 3, ALABAMA

NEW EDITION OF FISHBEIN'S "MEDICAL WRITING"

On July 2, 1948 there came from the Blakiston press the second edition of MEDICAL WRITING, THE TECHNIC AND THE ART by Morris Fishbein, M.D., editor of The Journal of the American Medical Association. In its preparation the author was aided by his assistant, Jewel F. Whelan. This unique volume should be an indispensable part of every medical author's library, as noted under Books Received in this issue of The Journal.

The book represents the gradual evolution of theory and practice associated with the conduct of the editorial department of the American Medical Association for some thirty-five years and supercedes in extensively revised form the various previous editions of the ART AND PRACTICE OF MEDICAL WRITING. It will be of service to physicians and writers in all scientific fields preparing articles ranging from the briefest report to a full treatise. It offers help in formulating style, in abbreviation, spelling and capitalization rules and in proofreading and indexing. From its pages one may glean the essential knowledge needed to assure proper treatment of a scientific or a medical subject and find expert guidance in the display of individuality and literary talent.

Its eighteen chapters are entitled: An Acceptable Paper; Style; Subject and Material; Construction of the Manuscript; Words and Phrases; Spelling; Capitalization; Abbreviations; Numbers; Pharmaceutic Products and Prescriptions; Biographic Material; Preparation of the Manuscript; Illustrations; Tables and Charts; Revision of the Manuscript; Proofreading; Indexing; Abbreviation of Names of Periodicals.

NEW HIGH IN HOSPITAL BIRTHS

Of more than three and a quarter million live births recorded for 1946, 82.4 per cent occurred in hospitals, 12.2 per cent were attended by physicians outside hospitals and 5.4 per cent were attended by midwives or other nonphysicians. The figures for Florida were 73.4 per cent, 11.2 per cent and 15.4 per cent, respectively. These statistics are in sharp contrast to those for 1935, the first year such data were compiled. Then only 36.9 per cent of the confinements occurred in hospitals, 50.6 per cent of the registered births were attended outside hospitals by physicians and 12.5 per cent were attended by midwives and others.

Reflected in this new high record set in 1946 are relatively large differences in the figures for white and nonwhite groups, and lesser ones for urban and rural areas. Nearly all (98.4 per cent) of the white births were attended by physicians and about seven in eight (87.1 per cent) occurred in hospitals; for nonwhite births less than two out of three (65.2 per cent) were attended by a physician and less than half (45.2 per cent) occurred in hospitals. For urban residents, 97.9 per cent of the registered live births were attended by physicians and 92.5 per cent occurred in hospitals; for rural residents, the corresponding proportions were 89.6 per cent and 67.1 per cent.

Compiled by the National Office of Vital Statistics, these data were summarized in a release late in August by the Federal Security Administrator. They indicate that in 10 other states besides Florida 10 per cent or more of the births were attended by nonphysicians. In 14 states 25 per cent or more of the births occurred outside a hospital.

SOUTHEASTERN CANCER SEMINAR TAMPA, NOVEMBER 8-10

The Cancer Seminar of the Southeastern States will be held on Nov. 8, 9 and 10, 1948, at the Tampa Terrace Hotel in Tampa. The Seminar is under the direction of the Tumor Clinic of the Tampa Municipal Hospital and is sponsored by the American Cancer Society, Florida Division, and the Florida State Board of Health.

The program includes morning and afternoon sessions, with presentation in panel discussion of such subjects as carcinoma of the breast, lung, uterus, ovary and stomach, and lymphoblastoma-leukemia.

At each symposium the subject will be discussed by a surgeon or an internist, a pathologist and a roentgenologist, who will handle the various phases of diagnosis, pathology and treatment.

At the end of each panel discussion, thirty minutes will be allowed for questions submitted by the audience.

This Seminar is conducted for the doctors of the Southeastern States and is primarily intended for the benefit of physicians in the general practice of medicine. Specialists in any field of medicine are, however, urged to attend.

Requests for hotel accommodations should be sent to Mr. A. K. Dickinson, Tampa Chamber of Commerce, Tampa, Fla. State in your communication that you are attending the Cancer Seminar.

NEW BLUE SHIELD SCHEDULE OF BENEFITS

On Sept. 1, 1948, a new and revised Blue Shield Schedule of Benefits became effective. This new Fee Schedule, as it is more commonly called, is broken down in greater detail and is more comprehensive than the one which has been in use since the organization of the plan. Before deliberating on the changes that have been made, a short history of the development of the Fee Schedule from the time the plan was organized until the present might be appropriate.

When the Florida Medical Service Corporation, better known as the Blue Shield Plan, was organized in 1946, the Florida Medical Association set up a Schedule of Benefits itemizing some 200 surgical procedures and the amounts to be paid by the plan to participating physicians for such surgical procedures. It was evident at the time the original fee schedule was drawn up that it was not comprehensive and that special consideration would have to be given to procedures not listed therein. A Claims Committee made up of participating physicians was appointed by the Board of Directors of the Florida Blue Shield Plan to meet when necessary to give special consideration to unusual claims and set up fees to be paid for procedures which were not shown in the fee schedule. This practice has been in effect since 1946.

As the Blue Shield Plan grew in both number of members and number of claims, it became evident that a new and more complete fee schedule was necessary. Since the Blue Shield Plan was organized by the Florida Medical Association, the Board of Directors of the plan appealed to the Board of Governors of the Florida Medical Association to take the necessary steps for the rewriting of the fee schedule. The Board of Governors appointed a committee composed of specialists in the various branches of medicine to meet and review the fee schedule of the Florida Blue Shield Plan. This committee is called the Board of Review and is set up on a permanent basis to meet whenever necessary for the purpose of reviewing the fee schedule of the Florida Blue Shield Plan and recommending necessary changes to the Board of Governors of the Florida Medical Association.

Copies of fee schedules of other Blue Shield Plans were sent to the members of the Board of Review for their individual study and comparison. A meeting of the Board of Review was held in October of 1947. At this meeting, after considerable discussion and deliberation, it was agreed to use as a model the fee schedule of the Massachusetts Blue Shield Plan, which in the opinion of all members was the most comprehensive of all fee schedules in current use, the Massachusetts plan being one of the oldest and most successful of all Blue Shield Plans. After the decision of the Board of Review to use the Massachusetts fee schedule as a model, each member was given a section of the Massachusetts fee schedule to study in detail and compare with the fee schedule of the Florida plan, each member being assigned the section of the fee schedule pertaining to his specialized branch of medicine. After careful study and consideration, reports were submitted by the individual members of the Board of Review to the Board of Governors of the Florida Medical Association, setting forth their recommendations for additions to, or changes in, the fee schedule of the Florida Blue Shield Plan. When reports had been received from all members of the Board of Review, the Board of Governors advised the Blue Shield Plan that the recommendations had been accepted, and submitted the recommended changes to the Board of Directors of the plan for approval. A detailed study was then made by the Blue Shield Plan to determine whether or not the cost of the revised fee schedule as recommended by the Board of Governors could be borne by the plan at the rates then being charged the public for these

services. Upon the completion of this study the Board of Directors approved the proposed fee schedule which was put into effect on Sept. 1, 1948. All participating physicians have been mailed copies of this new Schedule of Benefits.

While the original fee schedule of the Florida Blue Shield Plan listed approximately 200 surgical procedures, the new fee schedule is broken down into 871 procedures. The maximum amount of $150 paid by the plan remains the same, but in many cases the amounts of surgical procedures have been increased. The new Schedule of Benefits also shows alongside of each procedure the code number which is used by the plan in setting up the claim. Participating physicians are urged to show the identifying code number for surgical procedures on the Doctor's Service Report when filing claim against the Blue Shield Plan. This new fee schedule will facilitate the prompt payment of claims to physicians as it will eliminate the loss of time involved in presenting to the Claims Committee surgical procedures which were not listed in the former fee schedule. As previously stated, the Board of Review is a permanent committee appointed to study and recommend necessary changes in the fee schedule of the Blue Shield Plan, and as the plan continues to grow, further changes will be made, increasing the benefits both to subscribers and participating physicians.

STATE BOARD OF HEALTH

DIRECTOR OF BUREAU OF LABORATORIES GIVEN HONOR BY ARMED FORCES

At ceremonies held in the library of the State Board of Health in Jacksonville on July 26, 1948 Dr. Albert V. Hardy, Director, Bureau of Laboratories, was presented a "Certificate of Appreciation" on behalf of the War Department and the Navy Department.

Captain F. F. Sima, U. S. N., representing the Navy, paid tribute to Dr. Hardy's leadership in research. Colonel R. G. Howie, Commanding Officer of the Florida Military District, represented the Army and made the award. The certificate was presented in recognition of Dr. Hardy's contribution to the advancement of medical science during World War II in connection with studies of the dysenteric diseases. This work was done at the National Institute of Health and in cooperation with the Office of Scientific Research and Development.

Dr. James W. Ferris recently has become health officer of the unit composed of Hardee, DeSoto and Charlotte counties with headquarters at Arcadia.

Dr. Albert O. Ryan has been appointed assistant health officer to Dr. Edwin G. Riley in the Polk County Health Department at Bartow.

Dr. Joseph H. Batsche has accepted the position of assistant director of the Rapid Treatment Center at Melbourne.

Dr. Holland M. Carter is serving as health officer of the unit composed of Madison and Taylor counties with headquarters at Madison.

Dr. Daniel H. Rowe, former health officer of the unit composed of DeSoto, Charlotte and Hardee counties, has accepted the position of house officer at the Boston City Hospital in Massachusetts.

Dr. Burton F. Austin has assumed his duties as health officer of the Palm Beach County Health Department with headquarters at West Palm Beach. He formerly was state health officer in Alabama. Dr. Charles G. Chaplin, former health officer of the Jefferson County Health Department, has been appointed Dr. Austin's assistant.

Dr. G. L. Beaumont is the newly-appointed health officer of the unit composed of Highlands, Glades and Hendry counties with headquarters at Sebring.

Dr. Raymond J. Dalton, health officer of the Lake County Health Department for many years, has resigned his position, effective Aug. 1, 1948.

STATE NEWS ITEMS

Dr. Charles C. Hillman of Miami was recently honored when the British Consul conferred upon him the insignia of Honorary Commander of the Military Division of the Order of the British Empire for outstanding services during the war. Dr. Hillman is superintendent of Jackson Memorial Hospital.

Dr. Raymond L. Evans of Miami has become associated with Dr. John W. Snyder in the practice of surgery. Their offices are located at 402 Huntington Building.

Dr. Luther W. Holloway of Jacksonville and Dr. Warren W. Quillian of Coral Gables were members of the faculty of the Southern Pediatric Seminar which was held July 5-17 in Saluda, N. C. Dr. Holloway lectured on "Tetanus and Tetany" and "Congenital Obstruction in the Gastrointestinal Tract." Dr. Quillian treated the subjects "Anemia" and "Child Health Services."

Nine members of the Association attended the seminar. They are Drs. Burns A. Dobbins, Jr., Ft. Lauderdale; James B. Parramore, Key West; Charlotte E. Champion and Leland H. Dame, Orlando; William G. Meriwether, Plant City; Reddin Britt and Robert D. Harris, Jr., St. Augustine; Frank L. Quillman and Harry Z. Silsby, Sanford.

Dr. Robert H. Mickler of Tallahassee has opened his offices for the practice of medicine at 516 North Adams Street.

Dr. Irwin S. Leinbach has returned to St. Petersburg after a three months' tour of ten countries in Europe. Dr. Leinbach, who visited orthopedic surgeons and saw surgery in seven of the countries, was impressed with the fact "that their abilities, instruments and techniques were equally as good as ours in America, with very few exceptions." He reported that in the region of the city of Quimper, Brittany, there were approximately 3,500 persons with congenital hip lesions, either dysplasias, subluxations, or complete luxations. The area is composed of approximately 70,000 persons.

MEDICAL DISTRICT MEETINGS

The chairman of the Council, Dr. Herman Watson, has announced that the dates of the four Medical District meetings have been officially set by the Council as follows:

Live Oak, Monday, Oct. 18, 1948

Daytona Beach, Tuesday, Oct. 19, 1948

Bradenton - Sarasota, Wednesday, Oct. 20, 1948

West Palm Beach, Friday, Oct. 22, 1948

See complete program on page 231.

Dr. Lucien E. Myers of Winter Park was the guest speaker at a meeting of the local Rotary Club in the early part of August.

Dr. Eugene G. Peek, Jr., of Ocala, after serving two years in the U. S. Army Medical Corps, has returned to be associated with his father in the practice of medicine.

Dr. Starling P. Alderson of Miami was the guest speaker at the Miami Beach Rotary Club luncheon on August 10.

Miami physicians attending the recent meetings of the American Gastro-Enterological Association and the American Society for Clinical Investigation held in Atlantic City included Benjamin G. Oren, Jack O. W. Rash and Paul N. Unger.

DEATHS

DEATHS — MEMBERS

Dr. Clifford J. Gay, Jacksonville ..... Aug. 5, 1948
Dr. Frank L. Hall, Sarasota ..... July 14, 1948
Dr. James W. Smith, Miami ..... July 14, 1948

DEATHS — OTHER DOCTORS

Dr. Robert C. Strode, West Branch, Mich. .... April 5, 1948

WANTED: Registered laboratory and x-ray technician. Good salary with full maintenance. Florida State Hospital No. 2, Arcadia, Fla.

FLORIDA ACADEMY OF PUBLIC MEDICINE
PUBLIC RELATIONS FOR
FLORIDA MEDICAL ASSOCIATION

OFFICERS

ROBERT T. SPICER, M.D., President.....*Miami*
LOUIS M. ORR, II, M.D., 1st Vice Pres.....*Orlando*
W. DUNCAN OWENS, M.D., 2nd Vice Pres...*Miami Beach*
SHALER RICHARDSON, M.D., Sec'y-Treas.....*Jacksonville*

OTHER DIRECTORS

JAMES R. BOULWARE, JR., M.D.....*Lakeland*
C. FRANK CHUNN, M.D.....*Tampa*
GROVER C. COLLINS, M.D.....*Palatka*
J. MAXEY DELL, JR., M.D.....*Gainesville*
ROBERT B. HARKNESS, M.D.....*Lake City*
FREDERICK K. HERPEL, M.D.....*West Palm Beach*
FRANK W. HEWLETT, M.D.....*Coral Gables*
ROBERT B. MCIVER, M.D.....*Jacksonville*
ALVIN L. MILLS, M.D.....*St. Petersburg*
BRICEY M. RHODES, M.D.....*Tallahassee*
FRANK G. SLAUGHTER, M.D.....*Jacksonville*
JOSEPH S. STEWART, M.D.....*Miami*
DUNCAN T. MCEWAN, M.D.....*Orlando*

EXECUTIVE SECRETARY

ERNEST R. GIBSON.....*Jacksonville*

Editor's Note:

The purpose of the Academy is to promote a program of public relations under the supervision of the Florida Medical Association. At present all officers and members of the Academy are also members of the Florida Medical Association.

WEEKLY HEALTH COLUMN

Additional requests for the weekly health column, "Health Topics," continue to come into the office of the Academy of Public Medicine. This health information is now being received regularly by fifty-nine weekly and semi-weekly newspapers in the state. The column is restricted to these smaller newspapers and is released only to those who have indicated, after being contacted, that they desire the service. Watch for "Health Topics" and express your appreciation to the newspaper editor.

MEDICAL SUPPLEMENT

The August Journal reported a special medical public relations project sponsored by the Escambia County Medical Society. On June 27 an eighteen page medical supplement appeared as a part of the regular Sunday edition of the Pensacola News-Journal. The doctors of West Florida had presented the story of the medical profession to the public. Copies of the supplement may be obtained from the Academy office by any county medical society desiring to study this type of project.

RADIO PROGRAMS

Electrically transcribed medical programs, produced by the American Medical Association, are being carried on a number of stations throughout the state. At this writing they are on the air once each week from WTMC, Ocala; WFLA, Tampa; WLAK, Lakeland; WLBF, Leesburg; WEUS, Eustis; WDBO, Orlando, and three times weekly from WVCG, Miami. Many radio stations change programs during the summertime and revise their schedules again to start in early fall. WPDQ, Jacksonville, will again broadcast these medical programs starting some time in September. A. M. A. platters are available from the Academy.

EMERGENCY MEDICAL SERVICE

The Dade County Medical Association has established a Military Service Committee for the immediate study of a proposed program designed to protect the interests of both the public and the medical profession in the event of another national emergency. This is in line with similar actions taken by the American Medical Association and the Florida Medical Association, at the suggestion of the A. M. A.'s Council on National Emergency Medical Service. Apparently among the first of the county societies in the nation to take such action, the Dade Association's proposal rated commentary in the News Letter of the A. M. A.'s Council on Medical Service, with the heading "Leading the Way."

PUBLIC RELATIONS CONFERENCE

For the first time doctors serving on public relations committees, and laymen specialists in charge of medical public relations, will convene in St. Louis on November 27 in their own national conference.

DR. IRONS SPEAKS OUT

In his speech of acceptance on elevation to the office of president-elect of the American Medical Association, Dr. Ernest E. Irons issued a warning against complacency by physicians in regard to the potentiality of federal compulsory health insurance. Dr. Irons believes the danger is as great as ever. He urges county and state medical societies to stimulate their members to greater activity in letting the public know the inherent danger to individual freedom which lies in a proposal of this type.

MEDICAL LICENSES GRANTED

Dr. Frank D. Gray, Secretary of the State Board of Medical Examiners, has reported that of the 169 applicants who took the examination of the Board, held June 29-30, in Jacksonville, 161 passed and have been issued licenses to practice medicine in Florida. The names and addresses of the 161 successful applicants follow:

Abrashkin, Mortimer Dick, Coral Gables (Maryland 1932)
All, Frank Ewbank, Jacksonville (Emory 1942)
Alsup, Fred Werthly, Tallahassee (Howard 1947)
Altman, George Lawrence, Chicago (Illinois 1945)
Ames, Richard Haight, Winston-Salem, N. C. (Duke 1940)
Anderson, Donald Hood, Panama City (George Washington 1947)
Andrews, John Robert, Chagrin Falls, Ohio (Western Reserve 1932)
Arenson, Nathan, New Orleans, La. (N. Y. Med. 1937)
Arnold, Harry Dudley, Jr., Holly Hill (Chicago 1947)
Bailey, William Arthur, Baltimore, Md. (Wayne 1943)
Baker, Roy Maynard, Jacksonville (Emory 1948)
Barger, John Alexander, Jr., Melbourne (St. Louis 1932)
Beaumont, Godfrey Luke, Sebring (Pennsylvania 1932)
Beebe, Milton Omar, Jr., St. Petersburg (Rush 1940)
Blumstein, Charles Lewis, Columbus, Ga. (Louisiana State 1938)
Brody, Benjamin, Brooklyn, N. Y. (N. Y. Homeopathic 1916)
Buchanan, Arthur Paul, Jr., Tampa (McGill 1942)
Butt, Cecil Gascoyne, Orlando (Emory 1947)
Carmona, Manuel Gumersindo, Rochester, Minn. (Jefferson 1941)
Castro, Alejandro Francisco, Washington, D. C. (George Washington 1942)
Cato, Robert Eugene, Americus, Ga. (Emory 1947)
Chandler, James Ryan, Jr., Daytona Beach (Duke 1947)
Chaplin, Charles Garnet, Monticello (Michigan 1946)
Clark, George Beach, Bradenton (Tennessee 1944)
Corbitt, Jack, Hartford, Ala. (Tulane 1944)
Cordova, Arturo Ortiz, Miami (Pennsylvania 1947)
Cunningham, Charles Barnard, St. Petersburg (Michigan 1934)
Daughtrey, John Estes, Atlanta, Ga. (Emory 1942)
Daversa, Joseph James, Brooklyn, N. Y. (Long Island 1934)
Davis, Carl Henry, Wilmington, Del. (Rush 1909)
Davis, Henry Clinton, Wilmington, Del. (Pennsylvania 1946)
Dean, William Jesse, St. Petersburg (Emory 1948)
Deeb, Nasseef Augustus, Tallahassee (Loyola 1942)
DeLisa, Dominick Anthony, Richmond, Ind. (Albany 1943)
Domeier, Luverne Henry, St. Petersburg (Loyola 1940)
Douglass, Lawton Frank, Citra (Virginia 1946)
Dunlap, Edward Amberson, New York (Western Reserve 1935)
Dunlap, Ernest Brindley, Jr., Jacksonville (Duke 1939)
Dunsford, Ensor Rubidge, Jr., Jacksonville (Vanderbilt 1948)
DuRant, Julian Muldrow, Madison (South Carolina 1945)
Eckart, Emile Peter, Jr., East Tallahassee, Ala. (Louisiana State 1943)
Exum, William Allen, Snow Hill, N. C. (Duke 1941)
Field, Richard David, Lafayette, La. (Tulane 1942)
Flipse, Robert Charles, Jamaica, N. Y. (N. Y. Med. 1948)
Folsom, Thomas Gillespie, Huntington, W. Va. (Cincinnati 1932)
Gauzza, Valentine Paul, St. Augustine (Baylor 1921)
Gilbert, Joseph West, Jr., Jacksonville (Emory 1948)
Goldstein, Leopold, Philadelphia (Pennsylvania 1922)
Gottsch, John Erwin, Shenandoah, Iowa (Iowa 1947)
Grayson, Robert, Miami Beach (Columbia 1943)
Greenberger, Isidore Milton, New York (Royal Col. Med. Edinburgh 1937)
Greenfield, Maurice Murray, Miami (Ohio State 1943)
Groom, Dale Lemuel, Rochester, Minn. (Virginia 1943)
Hamerick, George, Jr., Burgettstown, Pa. (Pittsburgh 1937)
Hammond, Daniel Oscar, Miami (Maryland 1945)
Harris, Jack Kenneth, Jacksonville (Emory 1948)
Harrison, Ira Barnett, Jacksonville (Emory 1948)
Harsh, John Foster, Birmingham (Columbia 1943)
Harvey, Bennett Brown, Mount Dora (Indiana 1939)
Hauss, John Frederick, Miami Beach (Ohio State 1937)
Havener, William Henry, Cleveland, Ohio (Western Reserve 1948)
Head, Robert Grady, Marianna (Tennessee 1940)
Henry, Jimmy Farthing, Melbourne (Washington University 1944)
Hernandez, Moises Sergio, Miami Beach (Baylor 1940)
Hertner, John Ernest, Avon, Ohio (U. of Cincinnati 1943)
Hodges, Emory Falcon, Jr., St. Petersburg (Virginia 1947)
Holmes, James Walter, Miami (Tulane 1946)
Hunter, John Willis, Jr., Birmingham, Ala. (Washington 1938)
Hutchison, William Charles, McKeesport, Pa. (Pittsburgh 1927)
Hyman, Barnett Morton, Beaumont, Tex. (Tennessee 1936)
Jacobs, John Brown, Brooklyn, N. Y. (Western Reserve 1941)
Jenkins, Paul Hamilton, Ocala (Nebraska 1932)
Jensen, Marshall N., Blair, Neb. (Nebraska 1933)
Johnson, Thomas DeVann, Hawthorn (Emory 1948)
Kamer, Lawrence, Bronx, N. Y. (Middlesex 1945)
Kaminski, Bernard Adam, Miami Springs (Northwestern 1947)
Kantor, Samuel, Chicago, Ill. (Illinois 1938)
Kaplan, Samuel Elihu, Greenville, Ga. (Kansas City U. 1938)
Keigh, Walter Perry, Jacksonville (Arkansas 1944)
Kercheval, John Mavine, Clinton, Ind. (Indiana 1925)
Keys, Harry James, Jacksonville Beach (Ohio State 1941)
Kline, Lewis LeRoy, Detroit, Mich. (Coll. Med. Evangelists 1940)
Knauer, William Jerome, Jr., Jacksonville (George Washington U. 1948)
Lasley, Charles Haden, Atlanta, Ga. (Harvard 1947)
Lewis, John Ransom, Jr., Louisville, Ga. (Emory 1941)
Liddy, Eugene Daniel, Jr., Lawrence, Kan. (Kansas 1935)
MacLean, Richard Howard, Tampa (Northwestern 1948)
McDermid, John Turner, Vidalia, Ga. (Georgia 1948)
McKay, Ernest Gary, Tampa (Temple 1948)
McNeely, Henry Hyde, Toccoa, Ga. (Georgia 1946)
Magnon, West Bitzer, Decatur, Ga. (Emory 1948)
Maltzer, Joseph Herbert, Miami (Wayne 1945)
Manheimer, Leon Henry, Boston, Mass. (Harvard 1940)
Margoshes, Stanley, Miami (Bowman Gray, Wake Forest 1945)
Mason, Lester Millard, Cincinnati, Ohio (Med. Col. Virginia 1941)
Meaney, Richard Vincent, Punta Gorda (Cornell 1943)
Merrill, Joseph Howes, Jr., Palatka (Georgia 1948)
Moore, Leland O. W., Pittsburgh, Pa. (Cooper, now Leland Stanford, 1912)
Moorehead, Matthew Talmadge, Philadelphia, Pa. (Western Reserve 1923)
Morey, Horace Freeman, Lakeland (Syracuse 1933)
Neill, Robert Gleve, Durham, N. C. (Duke 1941)
Nelson, Raymond Nicholas, Bushnell (Marquette 1913)
Newbern, Walter Relfe, Palm Beach (Duke 1937)
Norley, Theodore, Philadelphia, Pa. (Hahnemann, Philadelphia 1943)
Owrey, Robert Howard, Tampa (Pittsburgh 1944)

Parker, Harold Eugene, Arcadia (Marquette 1940)
Peck, William King, New York (Columbia 1941)
Price, Raymond Miller, Oak Ridge, Tenn. (Tennessee 1926)
Proctor, William Houser, Chamblee, Ga. (Emory 1940)
Raborn, Robert E., Trenton (Tulane 1948)
Rahilly, George T. F., Nashville, Tenn. (Columbia 1941)
Raynolds, Arthur Hidden, St. Petersburg (Columbia 1926)
Reid, Charles Laurence, Jacksonville (Tulane 1947)
Rights, Clyde Siewers, Tampa (Wake Forest 1947)
Ring, Harold Henry, Belle Glade (Iowa 1926)
Robertson, George Will, III, Miami Beach (Pennsylvania 1940)
Rolfes, Harry Franklin, Lake City (Maryland 1944)
Rolls, Karl Reid, Sarasota (Coll. Med. Evangelists 1947)
Rose, Eugene Clifford, Daytona Beach (Meharry 1948)
Ross, Otho Bescent, Jr., Charlotte, N. C. (Duke 1943)
Rowe, David Lawrence, New York (Middlesex 1945)
Royer, Don John, West Palm Beach (Ohio State 1916)
Satriale, Oreste John, New York (Middlesex 1945)
Sausmer, William Abraham, Hicksville, N. Y. (Middlesex 1945)
Schochet, Sydney Sigsfried, Monroe, La. (Tulane 1914)
Schwartz, George Robert, St. Petersburg (Marquette 1932)
Shapiro, Allen David, Miami Beach (Long Island 1942)
Shashy, Samuel Abraham Moses, Ocala (Emory 1948)
Sheehan, Frank T., Opa Locka (Ohio State 1940)
Silver, Max Isadore, Douglas, Ga. (Emory 1944)
Simpson, James William, Orlando (Temple 1948)
Sims, John Norris, Comer, Ga. (Georgia 1947)
Skinner, Louis C., Jr., Coral Gables (Johns Hopkins 1940)
Smith, Elvira Corrales, Tampa (Louisiana State 1940)
Smith, James Reginald, Washington, N. C. (Meharry 1948)
Snyder, Grayson Cypher, Everett, Pa. (Pennsylvania 1947)
Speropoulos, John A., Miami (Natl. Univ. of Athens, Greece 1934)
Spicola, Louis Angel, Tampa (N. Y. Homeopathic 1935)
Steele, William Theakle, Lake City (Georgia 1944)
Steinman, William, Miami (Illinois 1941)
Stem, James Marion, Sarasota (Tennessee 1944)
Taylor, Isaiah Ewen, Huntington, W. Va. (Med. Col. Virginia 1936)
Toporoff, Jacob, West Palm Beach (N. Y. U. and Bellevue 1916)
Tromly, Robert Goodyear, Oak Ridge, Tenn. (Tennessee 1944)
Turner, Henry Haywood, II, Atlanta, Ga. (Emory 1943)
Unger, Harold Milton, Miami Beach (Columbia 1948)
Van Fleit, William Edmund, St. Petersburg (Indiana 1945)
Verdon, Franklyn Edward, New Smyrna Beach (Middlesex 1939)
Walker, Harry Burton, Jr., Vineland, N. J. (Temple 1948)
Walker, John Franklin, Ponte Vedra Beach (Emory 1948)
West, Joseph Ready, West Palm Beach (Vanderbilt 1944)
West, Joseph Warren, Owego, N. Y. (Duke 1944)
Wetzel, Dick Davis, Salt Lake City, Utah (Utah 1946)
White, Donald Palmer, Jr., Durham, N. C. (Duke 1943)
Williamson, Joseph Patterson, Ware Soals, S. C. (South Carolina 1928)
Wilson, Frances Chappell, Tampa (Washington 1943)
Wisch, Louis Jerome, DeLand (Illinois 1922)
Wright, John Edward, Coral Gables (Columbia 1943)
Yesner, Bernard, Jamaica, N. Y. (Arkansas 1940)
York, Dale Ellis, Bloomington, Ind. (Indiana 1940)
Young, Robert William, Daytona Beach (Johns Hopkins 1944)

COMPONENT SOCIETY NOTES

BAY

Members of the Bay County Medical Society were addressed by Dr. Luther C. Fisher, Jr., of Pensacola at their August meeting. Dr. Fisher spoke on hip fractures and treatment at the county health center. He illustrated his paper with roentgenograms and reported successful treatment of a hip fracture in a patient over 90 years of age.

Dr. Franklin H. Reeder, director of the county health unit, outlined requirements for patients who are receiving free insulin treatment.

Members present were Drs. Daniel M. Adams, Jr., Charles H. Daffin, James E. Kerr, Amsie H. Lisenby, James M. Nixon, Martle F. Parker, Franklin H. Reeder, William C. Roberts and Russell T. Stewart.

DADE

Dr. Chas. E. Thompson of the Veterans Administration Hospital, Memphis, Tenn., spoke before members of the Dade County Medical Association on August 3. His paper was entitled "The Internal Medical Approach to the Problem of Spinal Cord Injury."

DESOTO-HARDEE-HIGHLANDS-CHARLOTTE-GLADES

At the July meeting of the DeSoto-Hardee-Highlands-Charlotte-Glades County Medical Society, Dr. Joseph R. Campbell of Tampa spoke on "Special Hazards in the Use of Barbiturates with Particular Reference to Porphyria."

Members attending the meeting included Drs. Roland W. Banks, Henry P. Bevis, Isaac W. Chandler, Hubert W. Coleman, Merle C. Kayton, Charles H. Kirkpatrick, Ruth M. Miller, Wesley S. Pyatt, Zaven M. Seron, James G. Smith, Jr., Stanley K. Wallace and Howard V. Weems.

MANATEE

On August 12 the members of the Manatee County Medical Society entertained Mr. Bert W. Hendrickson at a dinner. Mr. Hendrickson successfully undertook a campaign to raise $150,000 for a new hospital and the Society members expressed their appreciation with a gift. At the close of the campaign, he had raised $192,000.

PUTNAM

Dr. Lawrence G. Hebel, who recently opened his practice in Palatka, has been made a member of the Putnam County Medical Society. His offices are located at 119 North Fourth Street.

The inactivity following surgery or disease, and often encountered in the aged, makes constipation a likely occurrence. Dehydration, too, frequently is a significant contributing factor.

When the "smoothage" of Metamucil is employed in the management of constipation, normal evacuation is permitted without irritation or undue pressure on sutures and incisions. Thus straining is minimized.

Metamucil promotes smooth, normal evacuation by furnishing a non-irritating water-retaining colloidal residue in the large bowel.

ACCEPTED
COUNCIL ON PHARMACY AND CHEMISTRY
AMERICAN MEDICAL ASSOCIATION

METAMUCIL® is the highly refined mucilloid of Plantago ovata (50%), a seed of the psyllium group, combined with dextrose (50%), as a dispersing agent.

RESEARCH IN THE SERVICE OF MEDICINE

SEARLE

"An excellent simple presumptive test for routine use in the diagnosis of diabetes."[1]

CLINITEST

THE TABLET *NO-HEATING* METHOD FOR DETECTION OF URINE-SUGAR

SIMPLE TECHNIC—"My experience with Clinitest has convinced me beyond a shadow of a doubt that they are *the simplest* from the technical standpoint . . ."[2]

SELF-GENERATING HEAT—"The reagent tablet, known as the Clinitest Urine Sugar Tablet . . . generates heat when dissolved and the use of externally applied heat is not required . . ."[1]

Clinitest—simple, speedy, compact, convenient—is distributed through regular drug and medical supply channels.

1. Kasper, J. A. and Jeffrey, I. A.: A Simplified Benedict Test for Glycosuria, Amer. J. Clin. Pathology, *14*:117-21 (Nov.) 1944.

2. Haid, W. H.: The Use of Screening Tests in the Clinical Laboratory, J. Amer. Med. Tech., *8*:606-14 (Sept.) 1947.

Identification cards for the protection of your diabetic patients now available free upon request.

AMES COMPANY, INC.
ELKHART, INDIANA

CLIFFORD JACKSON GAY

Dr. Clifford J. Gay of Jacksonville died at his home on Aug. 5, 1948 following a brief illness. He was 43 years of age.

Dr. Gay was a native of Valdosta, Ga. He received his medical training at the University of Georgia School of Medicine in Augusta, from which he was graduated in 1936. Following his internship at Jackson Memorial Hospital in Miami, he practiced medicine in Monticello, Avon Park and Sarasota before opening offices in Jacksonville five years ago. During World War II, Dr. Gay served as a captain in the United States Army Medical Corps.

He was a member of the Duval County Medical Society, the Florida Medical Association and the American Medical Association.

Survivors include his widow, Mrs. Ann Frishmeth Gay, Jacksonville; three daughters, Mrs. G. K. Jones, Raleigh, N. C., and the Misses Virginia Mae and Patricia Ann Gay, Jacksonville; a son, Clifford J. Gay II, Jacksonville; three brothers, Dr. H. L. Gay, Jacksonville dentist, Newton J. Gay, Orlando, and L. F. Gay, Miami; and three sisters, Mrs. Ruby Lee King, Sanford, Mrs. Mildred Keeley, Miami, and Mrs. Glen Dora Barkholter of California.

BEN DURHAM SPEARS

Dr. Ben D. Spears of Wauchula died at his home on April 25, 1948 following a long illness. He was 56 years of age.

Dr. Spears was born in Midland City, Ala., on Dec. 13, 1891. He was graduated from the Georgia College of Eclectic Medicine and Surgery in Atlanta in 1914 and was licensed to practice the same year.

He moved to Hardee County, Fla., in 1915 and practiced in Ona and Zolfo Springs for several years. While in Zolfo Springs, he served as a member of the city council and was instrumental in initiating municipal improvements, in develop-

ing the Aqua Vitae Mineral Springs and in obtaining a new school building.

In 1926 Dr. Spears moved to Wauchula, where he practiced continuously until ill health forced him to retire a few years ago. Locally, he was a member of the Wauchula Masonic Lodge and the Shrine, and was a charter member of the Wauchula Lion's Club. He was a member of the Wauchula Methodist Church.

Professionally, Dr. Spears was a member of the DeSoto-Hardee-Highlands-Charlotte-Glades County Medical Society and the Florida Medical Association, and was a fellow of the American Medical Association.

Surviving him are a daughter, Miss Marianne Spears, and a son, Doyle Carlton Spears, both of Wauchula; a sister, Mrs. Callie McCormick, of Florala, Ala.; two brothers, B. W. Spears of Ocala, and Frank B. Spears of Midland City, Ala.

LAWRENCE LORRAINE STEPP

Dr. Lawrence L. Stepp of Fort Lauderdale died at his home on May 30, 1948 at the age of 56.

Dr. Stepp was born in Tarentum, Pa., in 1891. Following his graduation from Grove City College and the University of Pittsburgh, he entered the University of Pennsylvania School of Medicine in Philadelphia, from which he was graduated in 1917.

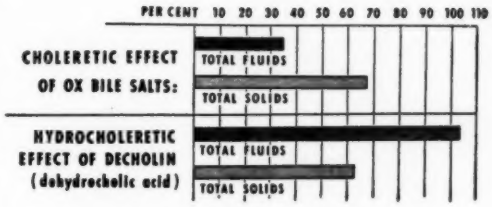
During World War I Dr. Stepp served in the United States Army Medical Corps. He came to Fort Lauderdale in 1938 from Pittsburgh, where he had been a practicing surgeon.

At the time of his death he was president of the Broward General Hospital staff, a member of the Broward County Medical Society, an honorary member of the Florida Medical Association and a fellow of the American Medical Association. He also was a member of the Nu Sigma Nu medical fraternity.

Locally, he was a member of the American Legion, the Central Improvement Association, of which he was one of the originators and the first president, the Kiwanis Club and the Yacht Club. Dr. Stepp was a member of the First Presbyterian Church in Fort Lauderdale.

He is survived by his widow, Mrs. Roma Burki Stepp.

DECHOLIN
HYDROCHOLERESIS
Encourages Biliary Tract Drainage


PER CENT 10 20 30 40 50 60 70 80 90 100 110
CHOLERETIC EFFECT OF OX BILE SALTS:
TOTAL FLUIDS
TOTAL SOLIDS
HYDROCHOLERETIC EFFECT OF DECHOLIN (dehydrocholic acid)
TOTAL FLUIDS
TOTAL SOLIDS

● **Percentage Increase in Composition and Quantity of Bile Flow**

Ivy, A. C., et al: Am. J. Dig. Dis. 7:333 (Aug.) 1940.

HYDROCHOLERESIS—

an increased production of thin liver bile—is a desirable approach to therapy of non-obstructive biliary tract disturbances.

DECHOLIN—

by producing an increased flow of bile—washes stagnant, infected bile from the intrahepatic and extrahepatic biliary passages, removing pus-laden material and discouraging the ascent of infection.

HOW SUPPLIED:

Decholin in 3¾ gr. tablets. Packages of 25, 100, 500 *and* 1000.

Decholin
BRAND · REG. U. S. PAT. OFF.
(DEHYDROCHOLIC ACID)

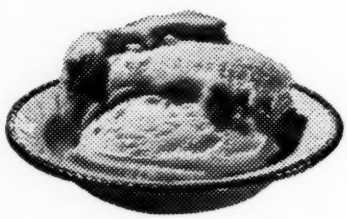
ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

AMES COMPANY, INC.
ELKHART, INDIANA

Nourishment

AS THEY

LIKE IT BEST



Yes, the nutrients in Sealtest Ice Cream—vitamins, minerals and protein—are among the finest in Nature's store. In addition to these, which include Vitamin A and calcium, it contains 10 important Amino Acids.

Southern Dairies

Sealtest

ICE CREAM

THE MEASURE OF QUALITY

WOMAN'S AUXILIARY

TO THE

FLORIDA MEDICAL ASSOCIATION, INC.

OFFICERS

MRS. L. E. PARMLEY, President.....*Winter Haven*
MRS. C. F. HENLEY, President-elect.....*Jacksonville*
MRS. R. J. JAHN, 1st Vice Pres.....*Winter Haven*
MRS. C. R. DEARMAS, 2nd Vice Pres.....*Daytona Beach*
MRS. R. G. LEWIS, 3rd Vice Pres.....*West Palm Beach*
MRS. B. A. WILKINSON, 4th Vice Pres.....*Tallahassee*
MRS. C. R. MORGAN, JR., Recording Sec'y.....*Miami*
MRS. F. E. BELL, Corresponding Sec'y.....*Gainesville*
MRS. W. L. TILLIS, Treasurer.....*Lakeland*

COMMITTEE CHAIRMEN

MRS. C. D. ROLLINS, Editorial.....*Jacksonville*
MRS. J. R. BOULWARE, JR., Finance.....*Lakeland*
MRS. F. J. PYLE, Hygeia.....*Orlando*
MRS. H. G. COLE, Legislation.....*Tampa*
MRS. C. H. MURPHY, Postwar Planning.....*Bartow*
MRS. S. R. HIGGINBOTHAM, JR., Program.....*Tampa*
MRS. J. L. ANDERSON, Public Relations.....*Miami*
MRS. T. A. SNOW, Student Loan Fund.....*Gainesville*
MRS. R. A. WILSON, Archives.....*Sarasota*
MRS. R. J. JAHN, Organization.....*Winter Haven*
MRS. F. W. KRUEGER, Revisions.....*Jacksonville*
MRS. W. C. WILLIAMS, JR., Historian..*West Palm Beach*
MRS. L. M. JENKINS, Parliamentarian.....*Miami*
MRS. F. M. PARISH, Bulletin.....*Orlando*

NOTES ON CONVENTION OF WOMAN'S AUXILIARY TO AMERICAN MEDICAL ASSOCIATION

In a partial report of the annual convention of the Woman's Auxiliary to the American Medical Association held in Chicago in June, Mrs. Lee E. Parmley, president of the Woman's Auxiliary to the Florida Medical Association, commented upon the tribute of Dr. Edward L. Bortz, past president of the A. M. A. Dr. Bortz stated that "in the field of human relationship the Woman's Auxiliary is our most valuable asset."

Mrs. Parmley reported that, including an increase of 7,000 women, the national auxiliary now is composed of 42,262 members. She urges that the Florida Auxiliary be the first to win the "Hygeia" plaque which has been presented to the national group. Each auxiliary has been encouraged to obtain and study the report from the Brookings Institution on compulsory health insurance.

Among the revisions of the Constitution and By-Laws of the Auxiliary to the American Medical Association was that to increase the annual dues from twenty-five cents to one dollar per member. In a letter to auxiliary presidents, Mrs. A. A Herold, treasurer of the A. M. A. auxiliary, explains that the assessment at the present time does not include subscriptions to any publications published by the national auxiliary.

BOOKS RECEIVED

MEDICAL WRITING, THE TECHNIC AND THE ART. By Morris Fishbein, M.D. Ed. 2. Price, $4.00. Pp. 292. Philadelphia: The Blakiston Company, 1948.

In this new edition of a most helpful style book for medical and scientific writers valuable and important suggestions have been well integrated and new suggestions have been incorporated. In particularly attractive garb with thirty-six illustrations, this volume is timely and should take its rightful place on the shelves of every physician's library, as pointed out in a commentary in this number of The Journal.

PROGRESS IN NEUROLOGY AND PSYCHIATRY, AN ANNUAL REVIEW, VOLUME III. Edited by E. A. Spiegel, M.D. Pp. 661. New York: Grune & Stratton, 1948.

Some two thousand eight hundred papers covering the fields of the basic sciences, neurology, neurosurgery and psychiatry have been reviewed in this volume. Sixty-nine contributors of note have made possible a considerable increase over the material reviewed in previous years.

FAILURES IN PSYCHIATRIC TREATMENT. Edited by Paul H. Hoch, M.D. Price, $4.50. Pp. 241. New York: Grune & Stratton, 1948.

The proceedings of the Thirty-Seventh Annual Meeting of the American Psychopathological Association, held in New York City in June 1947, comprise this volume and represent the first attempt to present a general review of therapeutic failures with different psychiatric methods of treatment. The book is, therefore, a unique contribution to the better understanding of the theory and praxis of psychiatric treatment.

CORRELATIVE NEUROANATOMY. By Joseph J. McDonald, M.D., Joseph G. Chusid, M.D., and Jack Lange, M.D. Ed. 4. Price, $3.00. Pp. 156. Palo Alto, Calif.: University Medical Publishers, 1948.

This comprehensive manual for the student in gross anatomy, neuroanatomy, neurodiagnosis and neurology correlates the anatomic and physiologic background with the clinical findings of neurologic disorders. It includes numerous diagrams which clearly show the distribution and functional components of the cranial, spinal and autonomic nerves, and the essentials of brain and spinal cord localization.

There are three sections, dealing respectively with peripheral nerves, neurodiagnosis, and diseases and disorders of the central nervous system. The appendix contains a complete list of neurologic signs and syndromes, a brief discussion of muscular dystrophies and atrophies and an outline of the neurologic examination.

LABORATORY C&B REAGENTS
Inorganic and Organic Chemicals
Biological Stains • Solutions
Chemical Indicators • Test Papers
Distributed by
Physician and Laboratory Supply Houses
The COLEMAN & BELL COMPANY, Inc.
MANUFACTURING CHEMISTS NORWOOD, OHIO, U. S. A.
COLEMAN & BELL Norwood, Ohio

Advertisement

From where I sit
by Joe Marsh

Now It's Neckties Made of Milk!

Fellow in Andy Botkin's Tavern the other day was boasting about a trick necktie he was wearing made out of a by-product of milk. "Took 33 pounds of milk to make this tie," he says.

Bill Webster was unimpressed. "Personally," he says, "I'd rather *drink* the milk. Just as I wouldn't change one glass of good American beer for a necktie made from thirty barrels of it!"

Yes—modern science being what it is—seems like you can make "anything out of anything" these days. But in the case of milk, well I guess drinking it is still a whole lot better than just wearing it.

Of course there are a whole lot of other ways of abusing goods and beverages—like a fellow who doesn't appreciate a glass of beer enough to drink it slowly and in moderation.

But from where I sit, most people who enjoy a wholesome beverage like beer or ale are *moderate—because beer itself is a beverage of moderation.*

Joe Marsh

Copyright, 1948, United States Brewers Foundation

"We never would have guessed

Mr. Moneyrocks had a heart of gold if Doctor hadn't said to

call the BYRON THOMPSON MAN"

OF COURSE we can't guarantee that equipment obtained from Byron Thompson will uncover the best in your patients. We can say, however, that with the modern equipment of all kinds now available, you can do your best for all patients.

Furthermore, when your existing equipment gets out of whack, calling the Byron Thompson Man is also in order. Our skilled technicians can usually diagnose the trouble and fix it in jig time.

And when you CALL THE BYRON THOMPSON MAN, you call one of the largest medical suppliers in this part of the world. Altogether, doctors, hospitals and labs do better at less cost when they make it a habit to CALL THE BYRON THOMPSON MAN!

Byron Thompson & Company

INCORPORATED

ESSENTIALS FOR SCIENTIFIC PROGRESS

DISTRIBUTORS OF HOSPITAL, PHYSICIANS AND LABORATORY SUPPLIES AND EQUIPMENT

JACKSONVILLE • MIAMI • ORLANDO

XUM